

TECHNICAL SUPPORT DOCUMENT
For
DRAFT/PROPOSED AIR EMISSION PERMIT NO. 05300477-004

This technical support document (TSD) is intended for all parties interested in the draft/proposed permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the draft/proposed permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Table 1. Applicant and Source Address

Applicant/Address	Stationary Source/Address (SIC Code: 2672)
Ritrama, Inc. 800 Kasota Ave SE Minneapolis Hennepin County	Ritrama, Inc. 800 Kasota Ave SE Minneapolis Hennepin County
Contact: Nicholas Mattsson Phone: (612) 676-7369	Consultant: David Estensen Phone: (612) 285-9865

1.2 Facility Description

Ritrama Inc. (Facility) is a pressure sensitive film stock and transfer adhesives manufacturing facility. Activities conducted at the facility include coating substrate with coatings, raw material receiving, product storage, and shipping. The Facility uses solvent-based and water-based coatings in the coating lines.

1.3 Description of any Changes Allowed with this Permit Issuance

The purpose of this permit action is to reissue the Title V / pt. 70 Permit for Ritrama, Inc. The previous Total Facility Permit was valid for a period of five years and expired on September 2, 2002. The facility submitted a timely renewal application on March 1, 2002.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

Table 2. Past Permit Amendments and Authorized Actions

Permit Number and Issuance Date	Action Authorized
Major Amendment 05300477-002 Issued: 1/3/2000	This permit action authorized the installation and operation of a Pressure Sensitive Coater, Corona Treater, and a Regenerative Thermal Oxidation emission control unit (RTO). The main pollutants of concern due to this modification are Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP). Ritrama, Inc. proposed a synthetic minor limit for VOC to limit emissions below federal New Source Review (NSR) regulations.

Permit Number and Issuance Date	Action Authorized
	The installation and operation of this new coating line is subject to Title I Condition, as defined in Minn. R. 7007.0100, subp. 25(b), and required a major amendment as specified in Minn. R. 7007.1500, subp. 1(B).
Major Amendment 05300477-003 Issued: 3/20/2003	The primary purpose of this permit action was to clarify the Volatile Organic Compounds (VOC) limits for the facility wide applicability in the current permit to more accurately reflect the actual VOC usage and VOC emissions at Ritrama, Inc.; and to incorporate more detailed temperature monitoring, record-keeping and reporting requirements. This amendment involved amending the existing Title I Conditions in the permit, and hence is classified as a major amendment to the Part 70 Total Facility Permit.
Reissuance of Total Facility Permit 05300477-004 To Be Issued	This permit action is for the reissuance of the total facility operating permit. In addition, this permit included two MPCA initiated parameter re-openings that included updating production operating limits and setting required performance test frequency based on results of the most recent performance test (October 4 th , 2010) for Coating Line No. 7 RTO (CE 009/EU 007) and incorporation of 40 CFR pt. 63, subp. JJJJ rules for EU 003, EU 004, and EU 007.

1.5 Facility Emissions:

Table 3. Total Facility Potential to Emit (PTE) Summary

	PM tpy	PM ₁₀ tpy	PM _{2.5} tpy	SO ₂ tpy	NO _x tpy	CO tpy	CO ₂ e tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	1.01	1.01	1.01	1.44	18.67	10.77	17876	225**	9.0**	22.5**
Total Facility Actual Emissions (2010)	0.16	0.16	***	0.01	2.14	1.80	*	13.87	*	*

*Not reported in MN emission inventory.

** Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21 and 40 CFR § 63.2.

*** Not available in most recent emissions inventory

1.6 Changes to Permit

Since the last permit action, Ritrama has not made any changes in the operation or design of its facility that would require a permit amendment. Several insignificant modifications have been incorporated into this permit. Specifically, Ritrama has removed Coating Line C-2 (EU 002), added a fourth and fifth corona treater (EU 009 & EU 010) and installed updated burners in coating lines C-3 (EU 003) and C-7 (EU 007). The MPCA has a combined operating and construction permitting program under Minnesota Rules Chapter 7007, and under Minn. R. 7007.0800, the MPCA has authority to include additional requirements in a permit. Under that authority, the following changes to the permit are also made through this permit action:

- Updated citations to reflect current MPCA templates and standard formatting
- Added particulate matter with an aerodynamic diameter of less than or equal to 2.5 microns (PM_{2.5}) emissions; the PM_{2.5} emissions tabulated in this permit are based on the conservative assumption that all emitted particulate matter with an aerodynamic diameter of less than or equal to 10 microns (PM₁₀) is assumed to be equal to PM_{2.5}.
- Incorporated requirements of 40 CFR pt. 63, subp. JJJJ
- Created GP 001 to accommodate requirements of 40 CFR pt. 63, subp. JJJJ
- Created GP 002 to consolidate industrial process equipment rule requirements
- Existing 40 CFR pt. 63, subp. B requirements and new requirements of 40 CFR pt. 63, subp. JJJJ have been combined for EU 007
- Added facility-wide HAP limit of 9.0 tons per year of any individual HAP and 22.5 tons per year for any combination of HAP to GP 001 level
- Moved facility-wide VOC limit from FC level to GP 001 level
- Incorporated combustion emissions into facility-wide VOC limit
- Added VOC limit of 49 tpy to EU 003
- Added VOC limit of 49 tpy to EU 004
- Added PTE information for all pollutants and emission units
- Relabeled existing appendix as Appendix A
- Added equations from 40 CFR pt. 63, subp. JJJJ to Appendix A
- Added Appendix B
- Added list of insignificant activities required to be listed to Appendix B
- Added Appendix C
- Added maximum VOC and HAP material contents for EU 003, EU 006, and EU 007 to Appendix C
- Added Appendix D
- Added constants used to modify the equations used for monthly calculations of VOC and HAP emissions to Appendix D.
- Moved VOC HAP destruction efficiency requirement from FC level to CE 009 level
- Removed EU 007 temperature recordkeeping language regarding acceptable temperature drops from temperature limit

Table 4. Facility Classification

Classification	Major/Affected Source	Synthetic Minor/Area	Minor/Area
PSD		VOC	PM, PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, O ₃ , Pb, CO _{2e}
Part 70 Permit Program	VOC		PM, PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, O ₃ , Pb, CO _{2e}
Part 63 NESHAP	HAPs	HAPs	

2. Regulatory and/or Statutory Basis

New Source Review

The facility is synthetic minor source for VOC, and a true minor source for all other pollutants under New Source Review regulations. No changes are authorized by this permit.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

Portions of the Facility are subject to 40 CFR pt. 60, subp. RR: Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations (EU 003, EU 004, EU 007). The affected source under NSPS RR is defined as each web coating line. The requirements, from 40 CFR pt. 60, subp. RR are dependent upon the VOC input rate in any 12-month period.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

As a part of this permit action, the Facility has requested limits to avoid classification as a major source of HAP. However, the Facility was a major source of HAP as of the compliance date for 40 CFR pt. 63, subp. JJJJ. Pursuant to the EPA's "Once In, Always In" policy, the Facility will remain subject to NESHAP JJJJ as long as the equipment triggering the NESHAP remains on-site.

Portions of the Facility are subject to 40 CFR pt. 63, subp. JJJJ National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. The affected source under NESHAP JJJJ is defined as the collection of all web coating lines at the facility. Therefore EU 003, EU 004, and EU 007 have new requirements that are attributed to NESHAP JJJJ. The requirements of NESHAP JJJJ can be found in EU 003, EU 004, EU 007, GP 001, and CE 009 because (1) the affected source is defined as the collection of all web coating lines at the facility, and (2) each of the coating lines has differing requirements under this NESHAP. In addition, the Permittee has stated that no area source NESHAPs apply to the facility.

Coating Line C-7 (EU 007) is subject to 40 CFR pt.63, subp. B National Emission Standards for Hazardous Air Pollutants: Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j). A determination was made that MACT would consist of a thermal oxidizer operated such that it achieves, at minimum, 98% HAP destruction efficiency.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR § 64.2, Compliance Assurance Monitoring (CAM) is applicable to pollutant-specific emission units that meet the following criteria:

- has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- is subject to an emission limitation or standard for that pollutant; and
- uses a control device, as defined in 40 CFR § 64.1, to comply with that emission limitation or standard.

Emission Unit 007, meets the above criteria. Therefore, the requirements of 40 CFR pt. 64, Compliance Assurance Monitoring, are included in this permit for this unit. The table below lists the sources which are subject to CAM, whether the source is a large pollutant specific emission unit (PSEU), and the monitoring for the applicable pollutants.

Table 5. CAM Summary

Unit	Control	CAM Applicability	Pollutant	Monitoring
EU 007	CE 009 Regenerative Thermal Oxidizer	Large	VOC's	Continuous temperature monitoring and recording; daily operational check; corrective actions requirements; periodic inspections and maintenance requirements

For large pollutant specific emission units, records of the monitored parameter must be made at a minimum of 4 times per hour, or once every 15 minutes. For other PSEUs (not large), records must be made at a minimum of once per 24 hours. See Attachment 4 to this document for the CAM Plan submitted by the applicant.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7007.3010 Construction or Reconstruction of a Major Source of Hazardous Air Pollutants Under Section 112(g)(2)(B) of the Act.
- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.2560 Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations
- Minn. R. 7011.7385 National Emission Standards for HAPs: Paper and Other Web Coating
- Minn. R. 7017.0200 Compliance Assurance Monitoring

Table 6. Regulatory Overview of Facility

Level*	Applicable Regulations	Comments:
GP 001 (EUs 003, 004, 007) (NESHAP JJJJ Affected Units)	Title I Condition: to avoid major source classification under 40 CFR Section 52.21; Minn. R. 7007.3000	Limits set on GP 001 (EU 003, EU 004, EU 007) for VOCs to avoid review under Federal PSD program.
	Title I Condition: To avoid major source classification under 40 CFR § 63.2	Limits set on GP 001 (EU 003, EU 004, EU 007) for individual and total HAPs to avoid major source classification under the NESHAP program
GP 002 (EUs 003-010) (Coating Lines and Corona Treaters)	Minn. R. 7011.0715	Standards of Performance for Post 1969 Industrial Process Equipment. Limit set for opacity and total particulate matter for GP 002 (EU 003-010). Per MPCA guidance, this rule applies in addition to the NESHAP. This is a state-only requirement.

Level*	Applicable Regulations	Comments:
EU 003 (Coating Line C-3)	40 CFR pt. 60, subp. RR 40 CFR pt. 63, subp. JJJJ	New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations. Limits to keep VOC usage less than threshold in the rule so that no NSPS emissions limits apply. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.
EU 004 (Coating Line C-6)	40 CFR pt. 60, subp. RR 40 CFR pt. 63, subp. JJJJ	New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations. Limits to keep VOC usage less than threshold in the rule so that no NSPS emissions limits apply. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.
EU 007 (Coating Line C-7)	40 CFR pt. 60, subp. RR 40 CFR pt. 63, subp. B 40 CFR pt. 63, subp. JJJJ	New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations. Emission limit of 95% VOC reduction applies. Case by Case Maximum Achievable Control Technology (MACT) Determination. Emission limit of 98% HAP reduction applies. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.
CE 009 (Regenerative Thermal Oxidizer)	40 CFR §§ 52.21 and 63.2 40 CFR pt. 60, subp. RR 40 CFR pt. 63, subp. B 40 CFR pt. 63, subp. JJJJ 40 CFR pt. 64; Minn. R. 7017.0200	PSD and NESHAPs. Control efficiency and other operating parameter requirements to limit VOC/HAP PTE to avoid major source classification under PSD and NESHAP programs. New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations. Emission limit of 95% VOC reduction applies. Case by Case Maximum Achievable Control Technology (MACT) Determination. Emission limit of 98% HAP reduction applies. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating. Continuous Assurance Monitoring (CAM) Requirements for the regenerative thermal oxidizer.

*Where the requirement appears in the permit (EU = emission unit, SV = stack/vent, GP = group, TF = total facility, CE = control equipment).

The language 'This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act' refers to permit

requirements that are established under state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are established under state law. State law requirements are not enforceable by the EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical Information

Total Facility

Process

Ritrama Inc. (Facility) is a pressure sensitive film stock and transfer adhesives manufacturing facility. Activities conducted at the facility include coating substrate with coatings, raw material receiving, product storage, and shipping. The Facility uses solvent-based and water-based coatings in the coating lines. Ritrama operates three coating lines: Line C-3, Line C-6, and Line C-7. Lines C-3 and C-6 both use water-based coatings and do not utilize control equipment. Line C-7 uses water-based and solvent-based coatings. When the solvent-based coatings are used, the emissions are controlled through the use of a regenerative thermal oxidizer.

Greenhouse Gases

As of January 2, 2011, the U.S. EPA began regulating Greenhouse Gases (GHGs) in terms of carbon dioxide equivalents, or CO₂e. As implied by the name, the pollutant Greenhouse Gases is not a single chemical, but a combination of many chemicals. Some chemicals are attributed to have a larger effect on the environment than others; to reflect this, each of these chemicals has been assigned a certain weighting factor called a global warming potential. These global warming potentials are defined by the U.S. EPA at 40 CFR pt. 98, Appendix A, Table 1. A source's emissions of GHGs are quantified in two steps: first, the potential emissions of each of the chemicals in 40 CFR pt. 98, Appendix A, Table 1 are multiplied by their respective global warming potential; second, the result of each calculation in step 1 are summed together to arrive at a single numeric value in the units of CO₂e. In order to be considered a major source of GHGs under the Title V operating permit program, a source must have a potential to emit exceeding 100,000 tons per year of CO₂e. If a source's emissions of GHG do not exceed this value, then, as of the date of this permit, there are no additional GHG-related permitting requirements beyond this calculation. As demonstrated by the attached calculations, the potential to emit of GHGs from this Facility is less than 100,000 tons per year of CO₂e.

GP 001: NESHAP JJJJ Affected Units (EU 003, EU 004, EU 007)

VOC Cap

Ritrama has elected to limit emissions of VOC to less than 225 tons per year, calculated as a rolling 12-month sum, in order to avoid the federal Prevention of Significant Deterioration program; by definition this limit and its associated recordkeeping are Title I Conditions. Standard MPCA permitting practices are to set 'limits to avoid' at approximately 90% of the relevant programmatic thresholds when relying on mass balances and monthly recordkeeping for compliance demonstration. Ritrama's facility-wide VOC cap has been changed from 245 to 225 tons per year to reflect this similarity. Compliance will be demonstrated with a monthly calculation, which, in turn, is supported by daily recordkeeping. The monthly calculation accounts for the VOC emissions of the three coating lines and fuel combustion. The

monthly calculation can be found at the GP 001 level within the CD-01, but the calculation is conceptually described below.

Ritrama operates three coating lines: Line C-3, Line C-6, and Line C-7. For coating line C-3 and C-6, VOC emissions are determined in the following manner: Ritrama tracks the quantity of VOC-containing-materials applied and their respective VOC contents on a daily basis and then subtracts the amount of VOC shipped off-site. Ritrama uses the daily tracking records to calculate the VOC usage on a monthly basis. For Line C-7, VOC emissions are determined in the following manner: Ritrama tracks the quantity of VOC-containing-materials applied and their respective VOC contents on a daily basis and then subtracts the amount of VOC shipped off-site; this value is then reduced by the solvent-based coatings' VOC content times the control efficiency of the regenerative thermal oxidizer. Ritrama uses the daily tracking to calculate the VOC emissions on a monthly basis. The VOC usage, waste shipments, and control equipment efficiency for all three coating lines over the previous 12 months is then summed and compared to the annual limit of 225 tons per year.

The Facility has several pieces of equipment that involve combustion of gaseous fossil fuels. This equipment includes dryers integrated into each of the three process lines and the regenerative thermal oxidizer. Specifically, these pieces of equipment can combust either propane or natural gas. In summation, these units are capable of combusting gaseous fossil fuel at a rate of 30.0 MMBtu/hr. The annual worst-case VOC emissions from the combustion units occur when each unit burns propane continuously. Rather than track emissions via fuel usage on a daily basis to support the Title I Condition, the Facility has elected to assume that each combustion process operates for 8760 hours each year. This quantity corresponds to the value found in the table in Appendix D for constants used for monthly calculations of VOC and HAP emissions. The VOC emissions from combustion units are accounted for by including the static term in the monthly calculation.

HAP Cap

Ritrama has elected to limit emissions of HAP to less than 9 tons per year of any single HAP and less than 22.5 tons per year of all HAP, calculated as a rolling 12-month sum, in order to avoid major source classification under 40 CFR pt. 63. Compliance will be demonstrated with a monthly calculation, which, in turn, is supported by daily recordkeeping. The monthly calculation accounts for the HAP emissions of the three coating lines and fuel combustion. The monthly calculation can be found at the GP 001 level within the CD-01, but the calculation is conceptually described below.

Ritrama operates three coating lines: Line C-3, Line C-6, and Line C-7. For each of the three coating processes, it is assumed that 0% of the HAP-containing material is retained within the coating. For coating line C-3 and C-6, HAP emissions are determined in the following manner: Ritrama tracks the quantity of HAP-containing-materials applied and their respective HAP contents on a daily basis. Ritrama uses the daily tracking records to calculate the HAP usage on a monthly basis. For Line C-7, HAP emissions are determined in the following manner: Ritrama tracks the quantity of HAP-containing-materials applied and their respective HAP contents on a daily basis; this value is then reduced by the solvent-based coatings' HAP content times the control efficiency of the regenerative thermal oxidizer. Ritrama uses the daily tracking records to calculate the HAP emissions on a monthly basis. The emitted HAP for all three coating lines over the previous 12 months is then summed and compared to the annual limit of 9 tons per year for any single HAP and 22.5 tons per year for all HAP.

The Facility has several pieces of equipment that involve combustion of gaseous fossil fuels. This equipment includes dryers integrated into each of the three process lines and the regenerative thermal oxidizer. Specifically, these pieces of equipment can combust either propane or natural gas. In summation, these units are capable of combusting gaseous fossil fuel at a rate of 30.0 MMBtu/hr. The annual worst-case HAP emissions from the combustion units occur when each unit burns propane continuously. Rather than track emissions via fuel usage on a daily basis to support the Title I Condition, the Facility has elected to assume that each combustion process operates for 8760 hours each year. This quantity corresponds to the value found in the table in Appendix D for constants used for monthly calculations of VOC and HAP emissions. The HAP emissions from combustion units are accounted for by including the static term in the monthly calculation.

NESHAP JJJJ

Ritrama is a major source of hazardous air pollutants. Ritrama also has three web coating lines. Per 40 CFR § 63.3300, the affected source under NESHAP JJJJ is the collection of all web coating lines at a facility. Therefore each coating line at Ritrama will have requirements pursuant to NESHAP JJJJ; however, the requirements for each coating line are not necessarily the same.

The emissions from EU 003 (Line C-3) and EU 004 (Line C-6) are not ducted to any form of control device, they are considered 'never controlled work stations' as that term is defined in 40 CFR § 63.3310. Emission Unit 007 operates under two operating scenarios: (1) a water-based coating scenario, and (2) a solvent-based coating scenario. When the unit is operating under the solvent-based coating scenario, the Permittee must operate the regenerative thermal oxidizer. The emission unit EU 007 (Line C-7) is considered an 'intermittently controlled work station' as that term is defined in 40 CFR § 63.3310. This is because the emissions are ducted to a control device during one operating scenario, but not in the alternate operating scenario. Regardless of the scenario, the Permittee must show compliance with NESHAP JJJJ. As part of compliance demonstration, the combined emissions from all three coating lines are calculated and then compared to the emission limit of 0.04 pounds of organic HAP per pound of applied coating material. This calculation must be performed each calendar month. The necessary equations to carry out this calculation are present in Appendix A of this permit. Other permit conditions relevant to 40 CFR pt. 63, subp. JJJJ are found at the EU 003 level, the EU 004 level, the EU 007 level, and the CE 009 level of the CD-01.

EU 002: Coating Line C-2

This emission unit was a coating line. The emission unit was removed from the Facility on or about April 1, 2005. The requirements for this emission unit have been removed from this permit.

EU 003: Coating Line C-3

Process

This coating line is composed of a two-segment process designed to apply and cure a coating on a web-based substrate. In the first segment (EU 003), a water-based adhesive is applied to a substrate. This process emits VOCs at a rate that is dependent upon the maximum VOC content of the coating and the rate the coating is applied to the substrate. The maximum VOC content of any single coating is 9.78 % by mass. These emissions are realized in the second segment of the process, which is a dryer rated at 1.8 MMBtu/hr. The dryer emissions are vented to SV 004. This dryer is capable and permitted to burn

either natural gas or propane. In parallel to this process, a film is treated via corona treater (EU 005). The emissions from this corona treater are vented to SV 006. After the film is treated, it is mated to the previously-mentioned cured adhesive. The result is a finished product.

NSPS RR

Emission Unit 003 is an affected unit under 40 CFR pt. 60, subp. RR. Should the VOC input rate exceed 50 tons in any 12-month period, the emission unit will become subject to further requirements of 40 CFR pt. 60, subp. RR. The permit language pertinent to NSPS RR has been updated to conform with MPCA standard practices. Notably, this permit now contains an explicit limit of 49.0 tons per year of VOC input. For the purposes of this calculation, no credit is given for waste shipments. If the emission unit exceeds this limit, then the emission unit will become subject to further requirements from NSPS RR; the Permittee must submit the appropriate permit amendment to add those new requirements. The Permittee must monitor the input of VOC.

NESHAP JJJJ

Under 40 CFR pt. 63, subp. JJJJ, this coating line is considered a 'never controlled work station' as that term is defined in 40 CFR § 63.3310. The HAP emissions from Lines C-3 and C-6 are quantified in Equation 6 in Appendix A of this permit. This equation calculates the total monthly organic HAP emitted (H_e) from line C-3, and accounts for the HAP within: (1) the coating material in its as-purchased state; and (2) any material added to the as-purchased coating material. All applied HAP is assumed to be emitted. Other permit conditions relevant to 40 CFR pt. 63, subp. JJJJ are found at the GP 001 level, the EU 004 level, the EU 007 level, and the CE 009 level of the CD-01.

3.0.5 EU 004: Coating Line C-6

Process

This coating line is composed of a two-segment process designed to apply and cure a coating on a web-based substrate. In the first segment (EU 004), a water-based adhesive is applied to a substrate. This process emits VOCs at a rate that is dependent upon the maximum VOC content of the coating and the rate the coating is applied to the substrate. Ritrama has indicated the maximum VOC content of any single coating is 3.03% by mass. These emissions are realized in the second segment of the process, which consists of three dryers that combined are rated at 13.5 MMBtu/hr. The dryer emissions are vented to SV 005. This dryer is capable and permitted to burn either natural gas or propane. In parallel to this process, a film is treated via corona treater (EU 006). The emissions from this corona treater are vented to SV 007. After the film is treated, it is mated to the previously-mentioned cured adhesive. The result is a finished product.

NSPS RR

Emission Unit 004 is an affected unit under 40 CFR pt. 60, subp. RR. Should the VOC input rate exceed 50 tons in any 12-month period, the emission unit will become subject to further requirements of 40 CFR pt. 60, subp. RR. The permit language pertinent to NSPS RR has been updated to conform with MPCA standard practices. Notably, this permit now contains an explicit limit of 49.0 tons per year of VOC. If the emission unit exceeds this limit, then the emission unit will become subject to further requirements from NSPS RR; the Permittee must submit the appropriate permit amendment to add those new requirements. The Permittee must monitor the input of VOC.

NESHAP JJJJ

Under 40 CFR pt. 63, subp. JJJJ, this coating line is considered a 'never controlled work station' as that term is defined in 40 CFR § 63.3310. The HAP emissions from Lines C-3 and C-6 are quantified in Equation 6 in Appendix A of this permit. This equation calculates the total monthly organic HAP emitted from line C-6, and accounts for the HAP within (1) the coating material in its as-purchased state; and (2) any material added to the as-purchased coating material. All applied organic HAP is assumed to be emitted. Other permit conditions relevant to 40 CFR pt. 63, subp. JJJJ are found at the GP 001 level, the EU 003 level, the EU 007 level, and the CE 009 level of the CD-01.

EU 005: Corona Treater for Line C-3

This emission unit is a corona treater. The treater is used to increase the surface tension of a solid material, thereby improving the wetting properties of a liquid placed on said material's surface. In Ritrama's case, the solid material is the web substrate and the liquid is an ink.

The unit draws electrical power, transforms the electricity to a higher voltage, and routes the higher-voltage electricity to an electrode. A second electrode, the ground electrode, is covered with an insulating material to inhibit electrical arcing. Normally, air acts as an insulator; however, when exposed to a high electric potential, air becomes a conductor of electricity and a corona is formed. In order to treat a surface, the two electrodes and the associated corona are placed in close proximity to a material. The corona alters the material's surface chemistry such that the surface tension is increased. By increasing the surface tension of the solid, a liquid will tend to spread over the surface instead of beading. This tendency to spread is referred to as 'wetting.' A liquid that wets a solid will result in a uniform coating with superior adhesion.

A product of corona treatment is ozone. The amount of ozone generated is directly proportional to the power input to the corona treater. Ritrama has provided manufacturer's information suggesting the emission rate is 0.073 pounds of ozone per kilowatt per hour. This corona treater can accept a maximum of 5 kilowatts of power. Assuming the unit operates continuously, the unit will emit 1.6 tons of ozone per year. These emissions are vented to SV 006. This emission unit is subject to the Industrial Process Equipment Rule as this unit is not subject to any other performance standard. Particulate emissions are not expected from this unit.

EU 006: Corona Treater for Line C-6

This emission unit is a corona treater. The treater is used to increase the surface tension of a solid material, thereby improving the wetting properties of a liquid placed on said material's surface. In Ritrama's case, the solid material is the web substrate and the liquid is an ink.

The unit draws electrical power, transforms the electricity to a higher voltage, and routes the higher-voltage electricity to an electrode. A second electrode, the ground electrode, is covered with an insulating material to inhibit electrical arcing. Normally, air acts as an insulator; however, when exposed to a high electric potential, air becomes a conductor of electricity and a corona is formed. In order to treat a surface, the two electrodes and the associated corona are placed in close proximity to a material. The corona alters the material's surface chemistry such that the surface tension is increased. By increasing the surface tension of the solid, a liquid will tend to spread over the surface instead of

beading. This tendency to spread is referred to as 'wetting.' A liquid that wets a solid will result in a uniform coating with superior adhesion.

A product of corona treatment is ozone. The amount of ozone generated is directly proportional to the power input to the corona treater. Ritrama has provided manufacturer's information suggesting the emission rate is 0.073 pounds of ozone per kilowatt per hour. This corona treater can accept a maximum of 10 kilowatts of power. Assuming the unit operates continuously, the unit will emit 3.2 tons of ozone per year. These emissions are vented to SV 007. This emission unit is subject to the Industrial Process Equipment Rule as this unit is not subject to any other performance standard. Particulate emissions are not expected from this unit.

EU 007: Coating Line C-7

Process

Emission Unit 007 operates under two operating scenarios: (1) a water-based coating scenario, and (2) a solvent-based coating scenario. Prior to any coating, the substrate is subjected to either zero, one, two, or three corona treaters (EU 008, EU 009, EU 010). The substrate is then coated with either a water-based coating, or a solvent-based coating. If water-based coatings are used, then up to three distinct coatings are applied; these coatings are a primer coat, a topcoat, and an adhesive. A set of dryers immediately follows each of the three coatings. At most, the water-based scenario will consist of the following process steps: corona treatment (EU 008); corona treatment (EU 009); corona treatment (EU 010); primer coating and drying (EU 007, SV 012); topcoat coating and drying (EU 007, SV 013); and adhesive coating and drying (EU 007, SV 014). If solvent-based coatings are used, then up to three distinct coatings are performed. However, the fumes from the solvent-drying process are routed to a regenerative thermal oxidizer (CE 009). At most, the solvent-based scenario will consist of the following steps: corona treatment (EU 008); corona treatment (EU 009); corona treatment (EU 010); solvent coating and drying (EU 007, CE 009, SV 008). Regardless of when the unit is operating, under the solvent-based coating scenario the Permittee must operate the regenerative thermal oxidizer.

NSPS RR

Emission Unit 007 is an affected unit under 40 CFR pt. 60, subp. RR. The VOC input rate exceeds 50 tons in any 12-month period, and therefore is subject to further requirements of 40 CFR pt. 60, subp. RR. As part of a Title I Condition: To avoid classification as a major modification under 40 CFR § 52.21, the Facility has accepted for VOCs: greater than or equal to 95 percent overall VOC emission reduction as calculated over a calendar month for each affected facility. This limit is more stringent than, and therefore satisfies the 90 percent overall VOC emission reduction requirement of 40 CFR § 60.442(a)(2)(i).

NESHAP JJJJ

Under 40 CFR pt. 63, subp. JJJJ, this coating line is considered an 'intermittently controlled work station' as that term is defined in 40 CFR § 63.3310. The HAP emissions from Line C-7 are quantified in Equation 15 in Appendix A of this permit. This equation calculates the total monthly organic HAP emitted from line C-7, and accounts for the HAP within (1) the coating material in its as-applied state when the control device is operating, (2) the overall organic HAP control efficiency, and (3) the coating material in its as-applied state when the control device is not operating. Note that Equation 15 requires information about the coating material in its as-applied state. In order to determine this information the Permittee

must use Equation 1a, which accounts for the HAP within (1) the coating material in its as-purchased state, and (2) any material added to the as-purchased coating material. Compliance with this standard is determined, in part, when the results of Equation 10 is less than or equal to the value 0.04 lb HAP / lb applied material. Equation 10 accounts for (1) HAP emissions from each of the three coating lines, (2) the mass of the as-purchased coating materials applied, and (3) the mass of material added to the as-purchased coating materials.

The emission unit EU 007 (Line C-7) is considered an 'intermittently controlled work station' as that term is defined in 40 CFR § 63.3310. This is because the emissions are ducted to a control device during one operating scenario, but not in the alternate operating scenario. A damper controls whether the emissions from EU 007 reach the regenerative thermal oxidizer. The Permittee is required to log: (1) the position of this damper every hour, and (2) when the position of the damper is changed. This information is used to determine, regardless of the scenario, compliance with NESHAP JJJJ. Other permit conditions relevant to 40 CFR pt. 63, subp. JJJJ are found at the GP 001 level, the EU 003 level, the EU 004 level, and the CE 009 level of the CD-01.

Clean Air Act Section 112(g)(2)(B) Determination

In a previous permit action, Ritrama constructed coating line C-7. Emissions from this line were calculated to be greater than the HAP major source thresholds. As EPA had not yet promulgated a major source category for this type of emission unit, the unit became subject to the more generic NESHAP 40 CFR pt. 63, subp. B. This NESHAP is the implementation of Section 112(g) of the Clean Air Act. Source category NESHAPS typically have a set of prescribed requirements. In NESHAP B the permit authority, in this case the MPCA determines the Maximum Available Control Technology (MACT). In this case, MACT was determined to be a regenerative thermal oxidizer with a HAP destruction efficiency of 98% or greater.

NESHAP JJJJ vs. Clean Air Act Section 112(g)(2)(B) Determination

Years after Ritrama's 112(g)(2)(B) determination, the EPA promulgated 40 CFR pt. 63, subp. JJJJ. This NESHAP is the source category that affects this emission unit. Per 40 CFR 40 § 63.44(b)(2), the Permittee must comply with the promulgated standard not longer than 8 years after the standard was promulgated. However, the NESHAP is less stringent in many regards when compared to the MACT determination. To ensure the Permittee is not subject to any less stringent standards, the permitting authority may incorporate any more stringent provisions of the MACT determination, per 40 CFR § 63.44(c); furthermore, the permitting authority is not required to incorporate any less stringent terms of the promulgated standard in the Title V permit. In effect, Ritrama must comply with the most stringent combination of the MACT determination and 40 CFR pt. 63, subp. JJJJ. For the purposes of this permit, this means that EU 007 is subject to the standards of 40 CFR pt. 63, subp. JJJJ as they are written, but with one exception. Absent the MACT determination, the regenerative thermal oxidizer serving EU 007 would be required to control HAP at an unspecified minimum percentage. The MACT determination is more stringent in this case, as the determination requires 98% control or better. Therefore the regenerative thermal oxidizer control requirement of NESHAP JJJJ has been altered to 98% pursuant to 40 CFR § 63.44(c).

EU 008 – EU 010: Corona Treaters 1 - 3 for Line C-7

These three emission units are corona treaters. Each treater is used to increase the surface tension of a solid material, thereby improving the wetting properties of a liquid placed on said material's surface. In Ritrama's case, the solid material is the web substrate and the liquid is an ink.

Each unit draws electrical power, transforms the electricity to a higher voltage, and routes the higher-voltage electricity to an electrode. A second electrode, the ground electrode, is covered with an insulating material to inhibit electrical arcing. Normally, air acts as an insulator; however, when exposed to a high electric potential, air becomes a conductor of electricity and a corona is formed. In order to treat a surface, the two electrodes and the associated corona are placed in close proximity to a material. The corona alters the material's surface chemistry such that the surface tension is increased. By increasing the surface tension of the solid, a liquid will tend to spread over the surface instead of beading. This tendency to spread is referred to as 'wetting.' A liquid that wets a solid will result in a uniform coating with superior adhesion.

A product of corona treatment is ozone. The amount of ozone generated is directly proportional to the power input to the corona treater. Ritrama has provided manufacturer's information suggesting the emission rate is 0.073 pounds of ozone per kilowatt per hour. The three corona treaters can accept a maximum of 15, 15, and 10 kilowatts of power respectively. Assuming each unit operates continuously, the units will emit 4.8, 4.8, 3.2 tons of ozone per year respectively. These emissions are vented to S/V 009, 010, and 011 respectively. These emission units are subject to the Industrial Process Equipment Rule individually as these units are not subject to any other performance standard. Particulate emissions are not expected from these units.

CE 009: Regenerative Thermal Oxidizer

VOC HAP Destruction Efficiency

The Permittee has successfully demonstrated the required control efficiency of greater than or equal to 98% during the October 4th, 2010 performance test. The test result showed a control efficiency of 98.9% DRE, where DRE is defined as the percent destruction deficiency for stack emissions.

VOC Destruction Efficiency

The Permittee has successfully demonstrated the required control efficiency of greater than or equal to 95% during the October 4th, 2010 performance test. The test result showed a control efficiency of 98.6%.

The Notice of Compliance (NOC) letters for performance tests performed on October 4th, 2010 can be found in Attachment 5. They contain the results determining operating parameters and testing frequency for the oxidizer.

Compliance Assurance Monitoring (CAM)

The regenerative thermal oxidizer CE 009 serves EU 007. The uncontrolled emissions of HAPs from EU 007 are greater than 10 tons per year of any HAP and are greater than 25 tons per year of any combination of HAPs. However, the unit is not subject to CAM for HAPs because the unit is subject to 40 CFR pt. 63, subp. JJJJ, promulgated December 4th, 2002. CAM does not apply to units subject to emissions limitations or standards proposed by the EPA after November 15th, 1990, pursuant to section 111 or 112 of the Clean Air Act.

The uncontrolled emissions from EU 007 of VOCs are greater than 250 tons per year, the unit is subject to emission limitations for VOCs, and compliance with the limit is achieved through the use of add-on control equipment. Therefore, the unit is subject to CAM for VOCs. The unit is subject to 40 CFR pt. 60, subp. RR; however, this standard was promulgated on October 18th, 1983 (i.e. before November 15th, 1990) so it does not exempt the emission unit from CAM for VOCs.

3.1 Calculations of Potential to Emit

Attachment 1 to this TSD contains Form GI-07, which summarizes the PTE of the Facility, and contains detailed spreadsheets and supporting information prepared by the MPCA and the Permittee.

VOC and HAP emissions are based on the current coatings and formulations for this facility. The Permittee assumed certain worst-case material contents and usage rates when determining the annual and short term potential to emit of these units. These assumptions are shown in the calculations submitted by the Permittee in Attachment 1 and are documented in Appendix C of the permit. The Permittee can change to a material that has a higher content of any of the given pollutants or increase the usage rate but this is considered a change in method of operation that must be evaluated to determine if a permit amendment or notification is required. Process emissions are listed at the emission unit level.

Combustion emissions from the regenerative thermal oxidizer and dryer operations are calculated, based on maximum throughput, using emission factors from AP-42, 1.4 and 1.5 (07/1998) and FIRE SCC 10300603 and 10301002 (using VOC Revoked). Potential green house gas (GHG) emissions were calculated using emission factors from 40 CFR pt. 98, tables C-1 and C-2. Carbon dioxide equivalence factors were taken from 40 CFR pt. 98 and were used with the GHG emission factors to calculate the PTE of CO₂e.

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements. In evaluating the monitoring included in the permit, the MPCA considered the following:

- The likelihood of the facility violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 7 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 7. Periodic Monitoring

Level*	Requirement (basis)	Additional Monitoring	Discussion
TF	Various		Updated standard template language at the Total Facility level.
GP 001 (EUs 003, 004, 007) (NESHAP JJJJ Affected Units)	Single HAP \leq 9.0 tons per year, on a 12 month rolling basis (limit to avoid NESHAP)	Recordkeeping: Daily records of coating usage; On-going MSDS records of coating contents; Monthly calculations of emissions.	Records can be generated on a daily basis since all the coating materials are dispensed from the central stores (used at EUs 003, 004, 007). This area will be using a combination of daily manual/electronic logs and delivery records. Credit can be taken for waste materials collected and shipped off-site (dispensed - waste = emissions). Since this is done at most monthly, calculating emissions more frequently than monthly would result in large spikes (while waste is accumulating) and dips (when waste is shipped) – resulting in possible paperwork violations and days with negative emissions. For these reasons, 12 month rolling limits are reasonable for this Facility.
	Total HAP \leq 22.5 tons per year, on a 12 month rolling basis (limit to avoid NESHAP)	Recordkeeping: Daily records of coating usage; On-going MSDS records of coating contents; Monthly calculations of emissions.	Records can be generated on a daily basis since all the coating materials are dispensed from the central stores (used at EUs 003, 004, 007). This area will be using a combination of daily manual/electronic logs and delivery records. Credit can be taken for waste materials collected and shipped off-site (dispensed - waste = emissions). Since this is done at most monthly, calculating emissions more frequently than monthly would result in large spikes (while waste is accumulating) and dips (when waste is shipped) – resulting in possible paperwork violations and days with negative emissions. For these reasons, 12 month rolling limits are reasonable for this Facility.
	VOC \leq 225 tons per year, on a 12 month rolling basis (limit to avoid PSD)	Recordkeeping: Daily records of coating usage; On-going MSDS records of coating contents; Monthly calculations of emissions.	Records can be generated on a daily basis since all the coating materials are dispensed from the central stores (used at EUs 003, 004, 007). This area will be using a combination of daily manual/electronic logs and delivery records. Credit can be taken for waste materials collected and shipped off-site (dispensed - waste = emissions). Since this is done at most monthly, calculating emissions more frequently than monthly would result in large spikes (while waste is accumulating) and dips (when waste is shipped) – resulting in possible paperwork

Level*	Requirement (basis)	Additional Monitoring	Discussion
	40 CFR pt. 63, subp. JJJJ	None.	violations and days with negative emissions. For these reasons, 12 month rolling limits are reasonable for this Facility. The Permittee shall comply with 40 CFR pt. 63, subp. JJJJ: National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating for applicable equipment contained within this group.
GP 002 (EUs 003-010) Coating Lines and Corona Treaters)	PM: ≤ 0.30 gr/dscf, each emission unit Opacity: ≤ 20 %, each emission unit (Minn. R. 7011.0715)	None.	EU 003, 004, and 007 emit Total Particulate Matter (TPM) in concentrations of 0.0004gr/dscf, 0.0008gr/dscf, and 0.0005gr/dscf respectively. These concentrations are well below the required limit and the likelihood of violating either emission limit is very small. Additionally, the remaining EUs in this group do not emit TPM and therefore they cannot violate the emission limits.
EU 003 (Coating Line C-3)	VOC ≤ 49 tons per year, on a 12 month rolling basis (limit to avoid additional requirements of 40 CFR pt. 60, subp. RR) 40 CFR pt. 60, subp. RR 40 CFR pt. 63, subp. JJJJ	Recordkeeping: Monthly records of coating usage; On-going records of coating contents; Monthly calculations of VOC applied in coatings. None. None.	This Coating Line is an affected facility (per 40 CFR § 60.440) which has taken limits to avoid the emissions limits in 40 CFR § 60.442(a). If the VOC input exceeds the limit in any 12-month period, the coating line is then subject to additional requirements in 40 CFR pt. 60, subp. RR, and the Permittee must obtain the appropriate permit amendment to add these requirements to the permit. The Permittee shall comply with 40 CFR pt. 60, subp. RR - Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations for applicable equipment included in the coating line (EU 003). The Permittee shall comply with 40 CFR pt. 63, subp. JJJJ - NESHAP: Paper and Other Web Coating for applicable equipment included in the coating line (EU 003).
EU 004 (Coating Line C-6)	VOC ≤ 49 tons per year, on a 12 month rolling basis (limit to avoid additional requirements of	Recordkeeping: Monthly records of coating usage; On-going records of coating contents; Monthly calculations of VOC	This Coating Line is an affected facility (per 40 CFR § 60.440) which has taken limits to avoid the emissions limits in 40 CFR § 60.442(a). If the VOC input exceeds the limit in any 12-month period, the coating line is then subject to additional requirements in 40 CFR pt. 60, subp.

Level*	Requirement (basis)	Additional Monitoring	Discussion
	40 CFR pt. 60, subp. RR)	applied in coatings.	RR, and the Permittee must obtain the appropriate permit amendment to add these requirements to the permit.
	40 CFR pt. 60, subp. RR	None.	The Permittee shall comply with 40 CFR pt. 60, subp. RR - Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations for applicable equipment included in the coating line (EU 004).
	40 CFR pt. 63, subp. JJJJ	None.	The Permittee shall comply with 40 CFR pt. 63, subp. JJJJ - NESHAP: Paper and Other Web Coating for applicable equipment included in the coating line (EU 004).
EU 007 (Coating Line C-7)	40 CFR pt. 60, subp. RR	None.	The Permittee shall comply with 40 CFR pt. 60, subp. RR - Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations for applicable equipment included in the coating line (EU 007).
	40 CFR pt. 63, subp. B	None.	The Permittee shall comply with 40 CFR pt. 63, subp. B – Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j) for applicable equipment included in the coating line (EU 007).
	40 CFR pt. 63, subp. JJJJ	None.	The Permittee shall comply with 40 CFR pt. 63, subp. JJJJ - NESHAP: Paper and Other Web Coating for applicable equipment included in the coating line (EU 007).
CE 009 (Regenerative Thermal Oxidizer)	HAPs-Volatile: Control Efficiency \geq 98% Total VOC: Control Efficiency \geq 95% Temperature limit \geq 1574 °F at the combustion chamber outlet (Conditions to avoid PSD & NESHAP; Minn.	Continuous Temperature monitoring, Recordkeeping, O & M, corrective actions requirements; periodic inspections and maintenance requirements, Performance testing for Total Hydrocarbon (Total VOC) and Volatile HAPs Control Efficiency.	Monitoring based on the Minnesota Performance Standard for Control Equipment and provisions of 40 CFR pt. 63, subp. JJJJ are adequate to have a reasonable assurance of compliance. This oxidizer must operate properly to ensure compliance with the limits pursuant to 40 CFR § 52.21. The permit contains a requirement to operate, monitor and maintain this oxidizer to ensure compliance with the limits. The thermal oxidizer is subject to CAM.

Level*	Requirement (basis)	Additional Monitoring	Discussion
	R. 7007.3000; 40 CFR pt. 64; Minn. R. 7017.0200)		
	40 CFR pt. 60, subp. RR	None.	The Permittee shall comply with 40 CFR pt. 60, subp. RR - Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations for applicable equipment included in the coating line (CE 009).
	40 CFR pt. 63, subp. B	None.	The Permittee shall comply with 40 CFR pt. 63, subp. B – Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j) for applicable equipment included in the coating line (CE 009).
	40 CFR pt. 63, subp. JJJJ	None.	The Permittee shall comply with 40 CFR pt. 63, subp. JJJJ - NESHAP: Paper and Other Web Coating for applicable equipment included in the coating line (CE 009).

*Where the requirement appears in the permit (EU = emission unit, SV = stack/vent, GP = group, TF = total facility, CE = control equipment).

3.3 Insignificant Activities

Ritrama, Inc. has several operations which are classified as insignificant activities under the MPCA's permitting rules. These are listed in Appendix B to the permit. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities.

Table 8. Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(G)	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0710/715)	These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Brazing, soldering or welding equipment	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0710/715)	Ritrama uses miscellaneous welding equipment. For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units

Insignificant Activity	General Applicable Emission limit	Discussion
		are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Individual units with potential emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity \leq 20% (with exceptions) (Minn. R. 7011.0715 and Minn. R. 7011.610) or $SO_2 \leq 0.5$ lb/MMBtu Opacity \leq 20% (Minn. R. 7011.2300)	Ritrama, Inc. has individual emission units (space heaters, indirect heating units, etc) fueled by natural gas and propane with a maximum heat input ranging from 115,000 to 360,000 Btu/hr. Based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, all of these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source	PM, variable depending on airflow or process weight rate Opacity \leq 20% (Minn. R. 7011.0715)	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and usually occur outdoors. Testing or monitoring is not feasible.

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be electronically tracked (e.g., limits, submittals, etc.), should be in Table A or B of the permit. The main reason is that the appendices are word processing sections and are not part of the electronic tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Appendix A contains the specific calculation procedures for VOC and HAP emissions. These procedures are too complex to enter into Delta and must go in an appendix.

Appendix B contains a listing of the Facility's insignificant activities and their applicable requirements.

Appendix C contains a listing of maximum materials content and usage rates for coating solutions at the time of permit issuance. All contents are "as used". However, changing to a material that has a higher VOC/HAP content, or increasing usage rate, is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150.

Appendix D contains constants used for monthly calculations of VOC and HAP emissions. The constant term is representative of combustion emissions produced from units EU 003, EU 004, and EU 007 operating continuously for 8760 hours per year.

Additionally, groups are used for requirements that apply to individual pieces of equipment within the group, rather than just the group of equipment as a whole. Because the requirements that apply to each individual piece of equipment in a group are the same, they are grouped in order to streamline the permit.

Specifically, all the general control, monitoring, recordkeeping, and reporting requirements associated with the coating operations subject to 40 CFR pt. 63, subp. JJJJ are grouped, as well as, the emission limit on HAPs (total and single volatile HAPs) to avoid major source classification under 40 CFR §63.2. However, the minimum operating temperatures and performance test requirements are at the control equipment level for the Regenerative Thermal Oxidizer (CE 009).

3.5 Comments Received

To be completed after end of referenced review periods.

Public Notice Period: <start date> - <end date>

EPA 45-day Review Period: <start date> - <end date>

4. Permit Fee Assessment

This permit action is the reissuance of an individual Part 70; therefore, no application fees apply under Minn. R. 7002.0016, subp. 1. to the changes that are covered by the re-issuance application. There are no rolled applications, so no fees apply. There are re-openings rolled into the application as described in section 1.3. However, they are not charged application or additional points.

5. Conclusion

Based on the information provided by Ritrama, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300477-004 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Hassan Bouchareb (permit engineer)
Brent Rohne (enforcement)
Curt Stock (stack testing)
Peggy Bartz (peer reviewer)

AQ File No. 2393; DQ 115, DQ 527, DQ 1237

Attachments: 1. PTE Summary and Calculation Spreadsheets
2. Facility Description
3. CD-01 Forms
4. CAM Plan Submitted by Ritrama, Inc.
5. October 4th, 2010 NOC Letters

ATTACHMENT 1
PTE SUMMARY AND CALCULATION SPREADSHEETS
(Available Electronically in Delta Central File)

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

Permit Application Form GI-07
FACILITY EMISSIONS SUMMARY
5/26/98

1) AQD Facility ID No: 05300477

2) Facility Name: Ritrama, Inc.

Note: The emissions from EUs 003 and 004 are separated into process emissions (Seg 1) and combustion emissions (Seg 2). Total PTE for the unit is calculated by adding both values.

Note: The emissions from EU 007 are separated into solvent based emissions (Seg 1), water based emissions (Seg 2), and combustion emissions (Seg 3). Total PTE for the unit is calculated by adding Seg 3 to the maximum of Seg 1 and 2.

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #:				3c) CAS #:				3c) CAS #:			
		3d) Name: <u>CO</u>				3d) Name: <u>CO₂e</u>				3d) Name: <u>Lead</u>			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003												
Coating Line C-3 Seg 2	EU 003	0.15	0.65	0.65		244.88	1072.58	1072.58		0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004												
Coating Line C-6 Seg 2	EU 004	1.11	4.85	4.85		1836.61	8044.33	8044.33		0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007												
Coating Line C-7 Seg 2	EU 007												
Coating Line C-7 Seg 3	EU 007	1.20	5.28	5.28		1999.86	8759.39	8759.39		0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			10.77	10.77			17876.30	17876.30			0.00	0.00	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #:				3c) CAS #:				3c) CAS #:			
		3d) Name: <u>NO_x</u>				3d) Name: <u>Ozone</u>				3d) Name: <u>PM</u>			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003												
Coating Line C-3 Seg 2	EU 003	0.26	1.12	1.12						0.01	0.06	0.06	
Coating Line C-6 Seg 1	EU 004												
Coating Line C-6 Seg 2	EU 004	1.92	8.40	8.40						0.10	0.45	0.45	
Corona Treater for C-3	EU 005					0.37	1.60	1.60					
Corona Treater for C-6	EU 006					0.73	3.20	3.20					
Coating Line C-7 Seg 1	EU 007												
Coating Line C-7 Seg 2	EU 007												
Coating Line C-7 Seg 3	EU 007	2.09	9.15	9.15						0.11	0.49	0.49	
Corona Treater 1 for C-7	EU 008					1.10	4.80	4.80					
Corona Treater 2 for C-7	EU 009					1.10	4.80	4.80					
Corona Treater 3 for C-7	EU 010					0.73	3.20	3.20					
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			18.67	18.67			17.59	17.59			1.01	1.01	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 3d) Name: PM10				3c) CAS #: 3d) Name: PM2.5				3c) CAS #: 3d) Name: SOx			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	
Coating Line C-3 Seg 1	EU 003												
Coating Line C-3 Seg 2	EU 003	0.01	0.06	0.06		0.01	0.06	0.06		0.02	0.09	0.09	
Coating Line C-6 Seg 1	EU 004												
Coating Line C-6 Seg 2	EU 004	0.10	0.45	0.45		0.10	0.45	0.45		0.15	0.65	0.65	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007												
Coating Line C-7 Seg 2	EU 007												
Coating Line C-7 Seg 3	EU 007	0.11	0.49	0.49		0.11	0.49	0.49		0.16	0.70	0.70	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			1.01	1.01			1.01	1.01			1.44	1.44	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 3d) Name: VOC				3c) CAS #: 3d) Name:				3c) CAS #: 3d) Name:			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	
Coating Line C-3 Seg 1	EU 003	9.85	43.15	43.15									
Coating Line C-3 Seg 2	EU 003	0.01	0.04	0.04									
Coating Line C-6 Seg 1	EU 004	29.56	129.46	129.46									
Coating Line C-6 Seg 2	EU 004	0.07	0.31	0.31									
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	52.88	4632.27	225.00									
Coating Line C-7 Seg 2	EU 007	51.73	226.59	225.00									
Coating Line C-7 Seg 3	EU 007	0.08	0.34	0.34									
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
Clean-Up Materials		2.36	10.34	10.34									
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			4815.91	225.00			0.00	0.00	0.00		0.00	0.00	0.0

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 75-07-0 3d) Name: Acetaldehyde				3c) CAS #: 79-10-7 3d) Name: Acrylic Acid				3c) CAS #: 7440-38-2 3d) Name: Arsenic			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.16	0.71	0.71		0.05	0.20	0.20					
Coating Line C-3 Seg 2	EU 003									0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004	0.49	2.14	2.14		0.14	0.59	0.59					
Coating Line C-6 Seg 2	EU 004									0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.00	0.00	0.00		0.00	0.00	0.00					
Coating Line C-7 Seg 2	EU 007	0.50	2.19	2.19		0.14	0.61	0.61					
Coating Line C-7 Seg 3	EU 007									0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			5.04	5.04			1.40	1.40			0.00	0.00	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 71-43-2 3d) Name: Benzene				3c) CAS #: 7440-41-7 3d) Name: Beryllium				3c) CAS #: 7440-43-9 3d) Name: Cadmium			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003												
Coating Line C-3 Seg 2	EU 003	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004												
Coating Line C-6 Seg 2	EU 004	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007												
Coating Line C-7 Seg 2	EU 007												
Coating Line C-7 Seg 3	EU 007	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			0.00	0.00			0.00	0.00			0.00	0.00	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 108-90-7				3c) CAS #: 7440-47-3				3c) CAS #: 7440-48-4			
		3d) Name: Chlorobenzene				3d) Name: Chromium				3d) Name: Cobalt			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.00	0.00	0.00									
Coating Line C-3 Seg 2	EU 003					0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004	0.00	0.00	0.00									
Coating Line C-6 Seg 2	EU 004					0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.00	0.55	0.01									
Coating Line C-7 Seg 2	EU 007	0.00	0.00	0.00									
Coating Line C-7 Seg 3	EU 007					0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		0.55			0.01	0.00			0.00	0.00			0.00

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 25321-22-6				3c) CAS #: 75-09-2				3c) CAS #: 123-91-1			
		3d) Name: Dichlorobenzene				3d) Name: Dichloromethane				3d) Name: 1,4-Dioxane			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003					0.00	0.00	0.00		0.01	0.04	0.04	
Coating Line C-3 Seg 2	EU 003	0.00	0.00	0.00									
Coating Line C-6 Seg 1	EU 004					0.00	0.00	0.00		0.03	0.13	0.13	
Coating Line C-6 Seg 2	EU 004	0.00	0.00	0.00									
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007					0.31	67.64	1.35		0.00	0.00	0.00	
Coating Line C-7 Seg 2	EU 007					0.00	0.00	0.00		0.03	0.13	0.13	
Coating Line C-7 Seg 3	EU 007	0.00	0.00	0.00									
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		0.00			0.00	67.64			1.35	0.30			0.30

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 140-88-5				3c) CAS #: 100-41-4				3c) CAS #: 107-21-1			
		3d) Name: Ethyl Acrylate				3d) Name: Ethyl Benzene				3d) Name: Ethylene Glycol			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.00	0.00	0.00		0.00	0.01	0.01		0.32	1.42	1.42	
Coating Line C-3 Seg 2	EU 003												
Coating Line C-6 Seg 1	EU 004	0.00	0.00	0.00		0.01	0.04	0.04		0.97	4.26	4.26	
Coating Line C-6 Seg 2	EU 004												
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.05	10.26	0.21		0.21	45.11	0.90		0.00	0.00	0.00	
Coating Line C-7 Seg 2	EU 007	0.00	0.00	0.00		0.01	0.04	0.04		1.00	4.37	4.37	
Coating Line C-7 Seg 3	EU 007												
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		10.26			0.21	45.17			0.95	10.05			9.00

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 50-00-0				3c) CAS #:				3c) CAS #: 110-54-3			
		3d) Name: Formaldehyde				3d) Name: Glycol Ethers				3d) Name: Hexane			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.20	0.85	0.85		0.28	1.25	1.25		0.00	0.00	0.00	
Coating Line C-3 Seg 2	EU 003	0.00	0.00	0.00						0.00	0.01	0.01	
Coating Line C-6 Seg 1	EU 004	0.59	2.56	2.56		0.85	3.74	3.74		0.00	0.00	0.00	
Coating Line C-6 Seg 2	EU 004	0.00	0.00	0.00						0.02	0.10	0.10	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.02	4.61	0.09		0.00	0.00	0.00		2.05	662.69	9.00	
Coating Line C-7 Seg 2	EU 007	0.94	4.11	4.11		0.88	3.83	3.83		0.00	0.00	0.00	
Coating Line C-7 Seg 3	EU 007	0.00	0.00	0.00						0.03	0.11	0.11	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		8.04			7.53	8.81			8.81	662.92			9.00

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 7439-96-5 3d) Name: Manganese				3c) CAS #: 7439-97-6 3d) Name: Mercury				3c) CAS #: 67-56-1 3d) Name: Methanol			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	
Coating Line C-3 Seg 1	EU 003									0.06	0.24	0.24	
Coating Line C-3 Seg 2	EU 003	0.00	0.00	0.00		0.00	0.00	0.00					
Coating Line C-6 Seg 1	EU 004									0.17	0.73	0.73	
Coating Line C-6 Seg 2	EU 004	0.00	0.00	0.00		0.00	0.00	0.00					
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007									0.72	157.70	3.15	
Coating Line C-7 Seg 2	EU 007									0.19	0.84	0.84	
Coating Line C-7 Seg 3	EU 007	0.00	0.00	0.00		0.00	0.00	0.00					
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		0.00				0.00				158.66			4.12

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 80-62-6 3d) Name: Methyl Methacrylate				3c) CAS #: 101-68-8 3d) Name: Methylene Diphenyl Diisocyanate				3c) CAS #: 91-20-3 3d) Name: Naphthalene			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	
Coating Line C-3 Seg 1	EU 003	0.09	0.39	0.39		0.00	0.00	0.00					
Coating Line C-3 Seg 2	EU 003									0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004	0.27	1.17	1.17		0.00	0.00	0.00					
Coating Line C-6 Seg 2	EU 004									0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.00	0.00	0.00		0.00	1.00	0.02					
Coating Line C-7 Seg 2	EU 007	0.27	1.20	1.20		0.00	0.00	0.00					
Coating Line C-7 Seg 3	EU 007									0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		2.75				1.00				0.00			0.00

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 7440-02-0 3d) Name: Nickel				3c) CAS #: Polycyclic Organic Matter 3d) Name: Polycyclic Organic Matter				3c) CAS #: 7782-49-2 3d) Name: Selenium			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003												
Coating Line C-3 Seg 2	EU 003	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-6 Seg 1	EU 004												
Coating Line C-6 Seg 2	EU 004	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007												
Coating Line C-7 Seg 2	EU 007												
Coating Line C-7 Seg 3	EU 007	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			0.00	0.00			0.00	0.00			0.00	0.00	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 100-42-5 3d) Name: Styrene				3c) CAS #: 108-88-3 3d) Name: Toluene				3c) CAS #: 584-84-9 3d) Name: 2,4-Toluene Diisocyanate			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.06	0.24	0.24		0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-3 Seg 2	EU 003					0.00	0.00	0.00					
Coating Line C-6 Seg 1	EU 004	0.17	0.73	0.73		0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-6 Seg 2	EU 004					0.00	0.00	0.00					
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.00	0.00	0.00		2.05	1885.70	9.00		0.00	0.02	0.00	
Coating Line C-7 Seg 2	EU 007	0.19	0.82	0.82		0.00	0.00	0.00		0.00	0.00	0.00	
Coating Line C-7 Seg 3	EU 007					0.00	0.00	0.00					
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
Clean-Up Materials						0.01	0.06	0.06					
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
			Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY		Unc TPY	Lim TPY	TPY
			1.79	1.79			1885.75	9.00			0.02	0.00	

3a) Emissions Source Type	3b) Emissions Source ID #:	3c) CAS #: 121-44-8 3d) Name: Triethylamine				3c) CAS #: 108-05-4 3d) Name: Vinyl Acetate				3c) CAS #: 1330-20-7 3d) Name: Xylene			
		3e) Potential			3f) Actual	3e) Potential			3f) Actual	3e) Potential			3f) Actual
		Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY	Max. Controlled (lbs/hr)	Max Uncontrolled TPY	Limited Controlled TPY	TPY
Coating Line C-3 Seg 1	EU 003	0.78	3.42	3.42		1.05	4.59	4.59		0.00	0.01	0.01	
Coating Line C-3 Seg 2	EU 003												
Coating Line C-6 Seg 1	EU 004	0.00	0.00	0.00		2.05	13.76	9.00		0.00	0.02	0.02	
Coating Line C-6 Seg 2	EU 004												
Corona Treater for C-3	EU 005												
Corona Treater for C-6	EU 006												
Coating Line C-7 Seg 1	EU 007	0.01	2.49	0.05		0.96	210.24	4.20		0.95	208.49	4.17	
Coating Line C-7 Seg 2	EU 007	2.05	17.21	9.00		2.05	14.11	9.00		0.00	0.02	0.02	
Coating Line C-7 Seg 3	EU 007												
Corona Treater 1 for C-7	EU 008												
Corona Treater 2 for C-7	EU 009												
Corona Treater 3 for C-7	EU 010												
4) Total Facility		Facility Potential			Actual	Facility Potential			Actual	Facility Potential			Actual
		Unc TPY			TPY	Unc TPY			TPY	Unc TPY			TPY
		20.63			9.00	228.59			9.00	208.51			4.19

Monthly Calculation - Combustion Emissions

Coating Line C-3 (EU 003) Combustion Emissions		
Pollutant	Maximum Emission Rate [tons/year]	Maximum Emission Rate [tons/month]
VOC	4.13E-02	3.44E-03
Arsenic	1.50E-06	1.25E-07
Benzene	1.58E-05	1.31E-06
Beryllium	9.01E-08	7.51E-09
Cadmium	8.26E-06	6.88E-07
Chromium	1.05E-05	8.76E-07
Cobalt	6.31E-07	5.26E-08
Dichlorobenzene	9.01E-06	7.51E-07
Formaldehyde	5.63E-04	4.69E-05
Lead	3.75E-06	3.13E-07
Manganese	2.85E-06	2.38E-07
Mercury	1.95E-06	1.63E-07
N-Hexane	1.35E-02	1.13E-03
Naphthalene	4.58E-06	3.82E-07
Nickel	1.58E-05	1.31E-06
Polycyclic Organic Matter	6.62E-07	5.52E-08
Selenium	1.80E-07	1.50E-08
Toluene	2.55E-05	2.13E-06
Total HAP	1.42E-02	1.18E-03

Coating Line C-6 (EU 004) Combustion Emissions		
Pollutant	Maximum Emission Rate [tons/year]	Maximum Emission Rate [tons/month]
VOC	3.10E-01	2.58E-02
Arsenic	1.13E-05	9.39E-07
Benzene	1.18E-04	9.86E-06
Beryllium	6.76E-07	5.63E-08
Cadmium	6.19E-05	5.16E-06
Chromium	7.88E-05	6.57E-06
Cobalt	4.73E-06	3.94E-07
Dichlorobenzene	6.76E-05	5.63E-06
Formaldehyde	4.22E-03	3.52E-04
Lead	2.82E-05	2.35E-06
Manganese	2.14E-05	1.78E-06
Mercury	1.46E-05	1.22E-06
N-Hexane	1.01E-01	8.45E-03
Naphthalene	3.44E-05	2.86E-06
Nickel	1.18E-04	9.86E-06
Polycyclic Organic Matter	4.97E-06	4.14E-07
Selenium	1.35E-06	1.13E-07
Toluene	1.91E-04	1.60E-05
Total HAP	1.06E-01	8.86E-03

Coating Line C-7 (EU 007) Combustion Emissions		
Pollutant	Maximum Emission Rate [tons/year]	Maximum Emission Rate [tons/month]
VOC	3.37E-01	2.81E-02
Arsenic	1.23E-05	1.02E-06
Benzene	1.29E-04	1.07E-05
Beryllium	7.36E-07	6.13E-08
Cadmium	6.75E-05	5.62E-06
Chromium	8.58E-05	7.15E-06
Cobalt	5.15E-06	4.29E-07
Dichlorobenzene	7.36E-05	6.13E-06
Formaldehyde	4.60E-03	3.83E-04
Lead	3.07E-05	2.56E-06
Manganese	2.33E-05	1.94E-06
Mercury	1.59E-05	1.33E-06
N-Hexane	1.10E-01	9.20E-03
Naphthalene	3.74E-05	3.12E-06
Nickel	1.29E-04	1.07E-05
Polycyclic Organic Matter	5.41E-06	4.51E-07
Selenium	1.47E-06	1.23E-07
Toluene	2.08E-04	1.74E-05
Total HAP	1.16E-01	9.65E-03

Constants Used for Monthly Calculations of VOC and HAP Emissions	
Pollutant	Constant (tons/month)
VOC	5.74E-02
Arsenic	2.09E-06
Benzene	2.19E-05
Beryllium	1.25E-07
Cadmium	1.15E-05
Chromium	1.46E-05
Cobalt	8.76E-07
Dichlorobenzene	1.25E-05
Formaldehyde	7.82E-04
Lead	5.21E-06
Manganese	3.96E-06
Mercury	2.71E-06
N-Hexane	1.88E-02
Naphthalene	6.36E-06
Nickel	2.19E-05
Polycyclic Organic Matter	9.20E-07
Selenium	2.50E-07
Toluene	3.55E-05
Total HAP	1.97E-02

Monthly Calculation -- VOC Emissions.

The Permittee shall calculate VOC emissions using the following equations:

$$\text{VOC (tons/month)} = V - W + \text{Constant}$$

$$\text{VOC emissions (tons/month, Coating Line C-7)} = (V - W) * (1 - \text{CE}) + \text{Constant}$$

$$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$$

$$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$$

where:

V = total VOC used in tons/month;

A# = amount of each VOC-containing material used, in tons/month;

B# = weight percent VOC in A#, as a fraction;

W = the amount of VOC shipped in waste, in tons/month;

C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero;

D# = weight percent of VOC in C#, as a fraction;

CE = VOC control efficiency of the regenerative thermal oxidizer (CE 009), as a fraction; and

Constant = the value from the table in Appendix D that represents VOC emissions in tons/month from combustion units EU 003, EU 004, and EU 007.

Monthly Calculation -- HAP Emissions..

The Permittee shall calculate each individual HAP and total HAP emissions using the following equations:

$$\text{HAP Emissions (tons/month)} = H - W + \text{Constant}$$

$$\text{HAP emissions (tons/month, Coating Line C-7)} = (H - W) * (1 - \text{CE}) + \text{Constant}$$

$$H = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$$

$$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$$

Where:

H = the amount of each pollutant (either total HAP or each individual HAP), used, in tons/month;

A# = Amount of each HAP-containing material used in the previous month, in tons/month;

B# = weight percent of each individual or total HAP in A#, as a fraction (e.g., 50% is 0.50);

W = the amount of each pollutant (either total HAP or each individual HAP) shipped in waste, in tons/month;

C# = amount, in tons/month, of each HAP-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero;

D# = weight percent of each individual or total HAP in C#, as a fraction;

CE = HAP control efficiency of the regenerative thermal oxidizer (CE 009), as a fraction; and

Constant = the value from the table in Appendix D that represents HAP emissions (either total HAP or each individual HAP) in tons/month from combustion units EU 003, EU 004, and EU 007.

EU 003	Maximum Application Rate (lbs/hr)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
	325	65	65
Pollutant / HAP Name	Maximum Material Content (wt%)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
VOC	3.03%	1.20%	9.78%
Formaldehyde	0.0600%	0.0962%	0.0769%
Methanol	0.0170%	0.0065%	0.0052%
Acetaldehyde	0.0500%	-	-
Dichloromethane	-	-	-
Acrylic Acid	0.0139%	-	-
Methyl Methacrylate	0.0273%	-	-
Ethyl Benzene	0.0009%	-	-
Styrene	0.0170%	0.0065%	0.0028%
Methylene Diphenyl Diisocyanate	-	-	-
Ethylene Glycol	0.0998%	-	-
Vinyl Acetate	0.3222%	-	-
Toluene	-	-	-
Chlorobenzene	-	-	-
Hexane	-	-	-
Triethylamine	-	1.2000%	0.8150%
1,4-Dioxane	0.0030%	-	-
Ethyl Acrylate	-	-	-
2,4-Toluene Diisocyanate	-	-	-
Xylene	0.0004%	-	-
Glycol Ethers	0.0875%	-	-

EU 004	Maximum Application Rate (lbs/hr)	
	<i>Adhesive</i>	
	975	
Pollutant / HAP Name	Maximum Material Content (wt%)	
	<i>Adhesive</i>	
VOC	3.03%	
Formaldehyde	0.0600%	
Methanol	0.0170%	
Acetaldehyde	0.0500%	
Dichloromethane		
Acrylic Acid	0.0139%	
Methyl Methacrylate	0.0273%	
Ethyl Benzene	0.0009%	
Styrene	0.0170%	
Methylene Diphenyl Diisocyanate	-	
Ethylene Glycol	0.0998%	
Vinyl Acetate	0.3222%	
Toluene	-	
Chlorobenzene	-	
Hexane	-	
Triethylamine	-	
1,4-Dioxane	0.0030%	
Ethyl Acrylate	-	
2,4-Toluene Diisocyanate	-	
Xylene	0.0004%	
Glycol Ethers	0.0875%	

EU 007 Solvent Based	Maximum Application Rate (lbs/hr)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
	1000	195	195
Pollutant / HAP Name	Maximum Material Content (wt%)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
VOC	69.71%	90.00%	94.86%
Formaldehyde	0.1000%	0.0275%	-
Methanol	3.6000%	0.0019%	-
Acetaldehyde	-	-	-
Dichloromethane	-	-	7.9200%
Acrylic Acid	-	-	-
Methyl Methacrylate	-	-	-
Ethyl Benzene	1.0300%	-	-
Styrene	-	-	-
Methylene Diphenyl Diisocyanate	-	-	0.1170%
Ethylene Glycol	-	-	-
Vinyl Acetate	4.8000%	-	-
Toluene	36.3600%	-	34.3200%
Chlorobenzene	0.0125%	-	-
Hexane	15.1300%	-	-
Triethylamine	-	0.2914%	-
1,4-Dioxane	-	-	-
Ethyl Acrylate	0.2343%	-	-
2,4-Toluene Diisocyanate	-	-	0.0020%
Xylene	4.7600%	-	-
Glycol Ethers	-	-	-

EU 007 Water Based	Maximum Application Rate (lbs/hr)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
	1000	195	195
Pollutant / HAP Name	Maximum Material Content (wt%)		
	<i>Adhesive</i>	<i>Primer</i>	<i>Topcoat</i>
VOC	3.03%	1.20%	9.78%
Formaldehyde	0.0600%	0.0962%	0.0769%
Methanol	0.0170%	0.0065%	0.0052%
Acetaldehyde	0.0500%	-	-
Dichloromethane	-	-	-
Acrylic Acid	0.0139%	-	-
Methyl Methacrylate	0.0273%	-	-
Ethyl Benzene	0.0009%	-	-
Styrene	0.0170%	0.0065%	0.0028%
Methylene Diphenyl Diisocyanate	-	-	-
Ethylene Glycol	0.0998%	-	-
Vinyl Acetate	0.3222%	-	-
Toluene	-	-	-
Chlorobenzene	-	-	-
Hexane	-	-	-
Triethylamine	-	1.2000%	0.8150%
1,4-Dioxane	0.0030%	-	-
Ethyl Acrylate	-	-	-
2,4-Toluene Diisocyanate	-	-	-
Xylene	0.0004%	-	-
Glycol Ethers	0.0875%	-	-

Clean-Up Materials	Cleaning VOCs		Cleaning HAPs	
	<i>Maximum Amount Used (gal/hr)</i>	<i>Maximum VOC Content (lbs/gal)</i>	<i>Maximum Usage Rate (lbs/hr)</i>	<i>Maximum HAP Content (Toluene, wt%)</i>
Methyl Ethyl Ketone	0.28	6.76	-	-
Iso-Propanol	0.06	6.58	-	-
Waldorf Blend	0.01	7.02	0.09	15.00%

Coater

Coating Line C-3 (Adhesive)		
Coater width	60.50	(in)
Coater width	5.04	(ft)
Coater Speed	100	(ft/min)
Coater Throughput	504.17	(ft ² /min)
Coater Throughput	46.84	(m ² /min)
Adhesive Application	52	(g/m ²)
Adhesive Application	2435.61	(g/min)
Adhesive Application	5.37	(lbs/min)
Adhesive Application Rate	322.17	(lbs/hr)

Coating Line C-3 (Primer)		
Coater width	60.50	(in)
Coater width	5.04	(ft)
Coater Speed	100	(ft/min)
Coater Throughput	504.17	(ft ² /min)
Coater Throughput	46.84	(m ² /min)
Adhesive Application	10	(g/m ²)
Adhesive Application	468.39	(g/min)
Adhesive Application	1.03	(lbs/min)
Adhesive Application Rate	61.96	(lbs/hr)

Coating Line C-3 (Topcoat)		
Coater width	60.50	(in)
Coater width	5.04	(ft)
Coater Speed	100	(ft/min)
Coater Throughput	504.17	(ft ² /min)
Coater Throughput	46.84	(m ² /min)
Adhesive Application	10	(g/m ²)
Adhesive Application	468.39	(g/min)
Adhesive Application	1.03	(lbs/min)
Adhesive Application Rate	61.96	(lbs/hr)

Coating Line C-6		
Coater width	60.75	(in)
Coater width	5.06	(ft)
Coater Speed	300	(ft/min)
Coater Throughput	1518.75	(ft ² /min)
Coater Throughput	141.10	(m ² /min)
Adhesive Application	52	(g/m ²)
Adhesive Application	7337.02	(g/min)
Adhesive Application	16.18	(lbs/min)
Adhesive Application Rate	970.51	(lbs/hr)

Coating Line C-7 (Adhesive)		
Coater width	62.50	(in)
Coater width	5.21	(ft)
Coater Speed	300	(ft/min)
Coater Throughput	1562.50	(ft ² /min)
Coater Throughput	145.16	(m ² /min)
Adhesive Application	52	(g/m ²)
Adhesive Application	7548.37	(g/min)
Adhesive Application	16.64	(lbs/min)
Adhesive Application Rate	998.47	(lbs/hr)

Coating Line C-7 (Primer)		
Coater width	62.50	(in)
Coater width	5.21	(ft)
Coater Speed	300	(ft/min)
Coater Throughput	1562.50	(ft ² /min)
Coater Throughput	145.16	(m ² /min)
Adhesive Application	10	(g/m ²)
Adhesive Application	1451.61	(g/min)
Adhesive Application	3.20	(lbs/min)
Adhesive Application Rate	192.01	(lbs/hr)

Coating Line C-7 (Topcoat)		
Coater width	62.50	(in)
Coater width	5.21	(ft)
Coater Speed	300	(ft/min)
Coater Throughput	1562.50	(ft ² /min)
Coater Throughput	145.16	(m ² /min)
Adhesive Application	10	(g/m ²)
Adhesive Application	1451.61	(g/min)
Adhesive Application	3.20	(lbs/min)
Adhesive Application Rate	192.01	(lbs/hr)

Use this form to calculate emissions from painting and coating operations.
Attach sheets to show all calculations, and duplicate this form for each booth/operation or attach sheets with equivalent information.
Use Form EC-08 to calculate emissions from any fuel-fired curing ovens used in this process.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 003 Seg 1
Emission Unit Description: Coating Line C-3
Stack/Vent Designation Number: SV 004
Control Equipment Identification Number:
Control Equipment Description:
Application Method: Web Coating
Number of Spray Ports in Booth:
Oven Curing, if applicable:
Number of Ovens: 1
Oven Fuels (if fuel fired): Natural Gas / Propane
Total Maximum Rated Heat Input of Ovens: 1.8 MM Btu/hr
Maximum Adhesive Application Rate: 325 (Lbs/hr)
Maximum Primer Application Rate: 65 (Lbs/hr)
Maximum Topcoat Application Rate: 65 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Adhesive):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	3.03%	9.85	43.2	0.00%	9.85	43.2		43.2

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Primer):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	1.20%	0.78	3.4	0.00%	0.78	3.4		3.4

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Topcoat):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	9.78%	6.36	27.9	0.00%	6.36	27.9		27.9

Total Potential-to-Emit:

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC		9.85	43.2		9.85	43.2		43.2

Operating Limitations, if applicable:

The Facility accepts a facility-wide VOC emission limit of less than or equal to 225 tons for any 12-month period to avoid major source status under 40 CFR 52.21

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 003 Seg 1
Emission Unit Description: Coating Line C-3
Stack/Vent Designation Number: SV 004
Control Equipment Identification Number: -
Control Equipment Description: -
Application Method: Web Coating
Number of Spray Ports in Booth: -
Maximum Adhesive Application Rate: 325 (Lbs/hr)
Maximum Primer Application Rate: 65 (Lbs/hr)
Maximum Topcoat Application Rate: 65 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential Emissions (Adhesive):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0600%	0.1950	0.8541	0.00%	0.8541	0.8541
Methanol	67-56-1	0.0170%	0.0553	0.2420	0.00%	0.2420	0.2420
Acetaldehyde	75-07-0	0.0500%	0.1625	0.7118	0.00%	0.7118	0.7118
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7	0.0139%	0.0452	0.1979	0.00%	0.1979	0.1979
Methyl Methacrylate	80-62-6	0.0273%	0.0887	0.3886	0.00%	0.3886	0.3886
Ethyl Benzene	100-41-4	0.0009%	0.0029	0.0128	0.00%	0.0128	0.0128
Styrene	100-42-5	0.0170%	0.0553	0.2420	0.00%	0.2420	0.2420
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1	0.0998%	0.3242	1.4199	0.00%	1.4199	1.4199
Vinyl Acetate	108-05-4	0.3222%	1.0473	4.5871	0.00%	4.5871	4.5871
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8		0.0000	0.0000	0.00%	0.0000	0.0000
1,4-Dioxane	123-91-1	0.0030%	0.0098	0.0427	0.00%	0.0427	0.0427
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7	0.0004%	0.0013	0.0057	0.00%	0.0057	0.0057
Glycol Ethers		0.0875%	0.2844	1.2456	0.00%	1.2456	1.2456

Potential Emissions (Primer):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0962%	0.0625	0.2739	0.00%	0.2739	0.2739
Methanol	67-56-1	0.0065%	0.0042	0.0185	0.00%	0.0185	0.0185
Acetaldehyde	75-07-0		0.0000	0.0000	0.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	0.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	0.00%	0.0000	0.0000
Styrene	100-42-5	0.0065%	0.0042	0.0184	0.00%	0.0184	0.0184
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	0.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	0.00%	0.0000	0.0000
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8	1.2000%	0.7800	3.4164	0.00%	3.4164	3.4164
1,4-Dioxane	123-91-1		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	0.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	0.00%	0.0000	0.0000

Potential Emissions (Topcoat):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0769%	0.0500	0.2188	0.00%	0.2188	0.2188
Methanol	67-56-1	0.0052%	0.0034	0.0148	0.00%	0.0148	0.0148
Acetaldehyde	75-07-0		0.0000	0.0000	0.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	0.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	0.00%	0.0000	0.0000
Styrene	100-42-5	0.0028%	0.0018	0.0080	0.00%	0.0080	0.0080
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	0.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	0.00%	0.0000	0.0000
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8	0.8150%	0.5297	2.3202	0.00%	2.3202	2.3202
1,4-Dioxane	123-91-1		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	0.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	0.00%	0.0000	0.0000

Total Potential Emissions:

Volatile HAP Name	CAS	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.1950	0.8541	0.8541	0.8541
Methanol	67-56-1	0.0553	0.2420	0.2420	0.2420
Acetaldehyde	75-07-0	0.1625	0.7118	0.7118	0.7118
Dichloromethane	75-09-2	0.0000	0.0000	0.0000	0.0000
Acrylic Acid	79-10-7	0.0452	0.1979	0.1979	0.1979
Methyl Methacrylate	80-62-6	0.0887	0.3886	0.3886	0.3886
Ethyl Benzene	100-41-4	0.0029	0.0128	0.0128	0.0128
Styrene	100-42-5	0.0553	0.2420	0.2420	0.2420
Methylene Diphenyl Diisocyanate	101-68-8	0.0000	0.0000	0.0000	0.0000
Ethylene Glycol	107-21-1	0.3242	1.4199	1.4199	1.4199
Vinyl Acetate	108-05-4	1.0473	4.5871	4.5871	4.5871
Toluene	108-88-3	0.0000	0.0000	0.0000	0.0000
Chlorobenzene	108-90-7	0.0000	0.0000	0.0000	0.0000
Hexane	110-54-3	0.0000	0.0000	0.0000	0.0000
Triethylamine	121-44-8	0.7800	3.4164	3.4164	3.4164
1,4-Dioxane	123-91-1	0.0098	0.0427	0.0427	0.0427
Ethyl Acrylate	140-88-5	0.0000	0.0000	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9	0.0000	0.0000	0.0000	0.0000
Xylene	1330-20-7	0.0013	0.0057	0.0057	0.0057
Glycol Ethers		0.2844	1.2456	1.2456	1.2456

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate combustion emissions for each furnace, oven, or dryer, or attach sheets with equivalent information.
- Use Form Form EC-13C to calculate emissions of hazardous air pollutants (HAPs) from external combustion of fuels.

AQ Facility ID No.: 05300477
 AQ File No.: 2393
 Facility Name: Ritrama, Inc.
 Emission Unit Identification Number: EU 003 Seg 2
 Emission Unit Description: Coating Line C-3
 Stack/Vent Identification Number: SV 004
 Control Equipment Identification Number: _____
 Control Equipment Description: _____
 Maximum Rated Burner Capacity: 1.80 (MM BTU/hr) 1 @ 1.8MM
 Primary Fuel Type: Natural Gas
 Heat Value: 1,050 (BTU/cf) Per MPCA
 Fuel Consumption Rate: 1,714 (CF/hr)
 2-Year Average Actual Annual Fuel Use: _____ (CF)

Calculations Summary - Natural Gas

Pollutant	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0000076	(Lbs/CF)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
PM10	0.0000076	(Lbs/CF)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
PM2.5	0.0000076	(Lbs/CF)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
SOx	0.0000006	(Lbs/CF)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0
NOx	0.0001000	(Lbs/CF)	0.17	0.8	0.0	0.00%	0.8	0.8	0.0
VOC	0.0000055	(Lbs/CF)	0.01	0.0	0.0	0.00%	0.0	0.0	0.0
CO	0.0000840	(Lbs/CF)	0.14	0.6	0.0	0.00%	0.6	0.6	0.0
Lead	5.00E-10	(Lbs/CF)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Back-Up Fuel Type:

Heat Value:

Fuel Consumption Rate:

Fuel Parameters:

2-Year Average Actual Annual Fuel Use:

Propane

91,500 (BTU/gal)

AP-42 1.5 (07/08)

20 (GAL/hr)

10 Sulfur Content (gr/100 ft3) - Typical

(GAL)

Calculations Summary - Propane

Pollutant	Emission Factors AP-42 1.5 (07/08) & Fire SCC 10301002 - Using VOC Revoked	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0007000	(Lbs/Gallon)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
PM10	0.0007000	(Lbs/Gallon)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
PM2.5	0.0007000	(Lbs/Gallon)	0.01	0.1	0.0	0.00%	0.1	0.1	0.0
SOx	0.0001000	(Lbs/Gallon)*S	0.02	0.1	0.0	0.00%	0.1	0.1	0.0
NOx	0.0130000	(Lbs/Gallon)	0.26	1.1	0.0	0.00%	1.1	1.1	0.0
VOC	0.0004700	(Lbs/Gallon)	0.01	0.0	0.0	0.00%	0.0	0.0	0.0
CO	0.0075000	(Lbs/Gallon)	0.15	0.6	0.0	0.00%	0.6	0.6	0.0
Lead	0.0000000	(Lbs/Gallon)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Worst-Case Emission Summary:

Pollutant	Emissions Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.01	0.1	0.0	0.1	0.1	0.0
PM10	0.01	0.1	0.0	0.1	0.1	0.0
PM2.5	0.01	0.1	0.0	0.1	0.1	0.0
SOx	0.02	0.1	0.0	0.1	0.1	0.0
NOx	0.26	1.1	0.0	1.1	1.1	0.0
VOC	0.01	0.0	0.0	0.0	0.0	0.0
CO	0.15	0.6	0.0	0.6	0.6	0.0
Lead	0.00	0.0	0.0	0.0	0.0	0.0

Operating Limitations, if applicable:

None

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 003 Seg 2
Emission Unit Description: Coating Line C-3
Stack/Vent Identification Number: SV 004
Control Equipment Identification Number: -
Control Equipment Description: -
Maximum Rated Burner Capacity: 1.80 (MM BTU/hr) 1 @ 1.8MM
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 1,714 (CF/hr)
2-Year Average Actual Annual Fuel Use: - (CF)

Calculations Summary - Natural Gas

HAP Name (CAS)	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Arsenic (7440-38-2)	2.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Benzene (71-43-2)	2.10E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Beryllium (7440-41-7)	1.20E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Cadmium (7440-43-9)	1.10E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Chromium (7440-47-3)	1.40E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Cobalt (7440-48-4)	8.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Dichlorobenzene (25321-22-6)	1.20E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Formaldehyde (50-00-0)	7.50E-08	(Lbs/CF)	0.0001	0.0006	0.0000	0.00%	0.0006	0.0006	0.0000
Lead (7439-92-1)	5.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Manganese (7439-96-5)	3.80E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Mercury (7439-97-6)	2.60E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
N-Hexane (110-54-3)	1.80E-06	(Lbs/CF)	0.0031	0.0135	0.0000	0.00%	0.0135	0.0135	0.0000
Naphthalene (91-20-3)	6.10E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Nickel (7440-02-0)	2.10E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Polycyclic Organic Matter	8.82E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Selenium (7782-49-2)	2.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Toluene (108-88-3)	3.40E-09	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Total			0.0032	0.0142	0.0000		0.0142	0.0142	0.0000

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate the potential and actual greenhouse gas (GHG) emissions for each operation contributing to GHG emissions.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 003 Seg 2
Emission Unit Description: Coating Line C-3
Stack/Vent Identification Number: SV 004
Control Equipment Identification Number:
Control Equipment Description:
Maximum Rated Burner Capacity: 1.80 (MM BTU/hr) Total Facility
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 1,714 (CF/hr)
2-Year Average Actual Annual Fuel Use: (CF/hr)

Calculations Summary - Natural Gas

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate			Pollution Control Efficiency (%)	Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	(tpy)	CO ₂ e (typ)		(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	53.0200	116.8890	210.40	921.55	921.55	0.00%	210.40	921.55	921.55	210.40	921.55	921.55	-	-
CH ₄	21	0.0010	0.0022	0.00	0.02	0.37	0.00%	0.00	0.02	0.37	0.00	0.02	0.37	-	-
N ₂ O	310	0.0001	0.0002	0.00	0.00	0.54	0.00%	0.00	0.00	0.54	0.00	0.00	0.54	-	-
HFCs															
PFCs															
SF ₆	23,900														
Total CO ₂ e	Calculated Eq. A-1					922.46				922.46			922.46		-

Back-Up Fuel Type: Propane
Heat Value: 91,500 (BTU/gal) AP-42 1.5 (07/08)
Fuel Consumption Rate: 20 (GAL/hr)
Fuel Parameters: 10 Sulfur Content (gr/100 ft3) - Typical
2-Year Average Actual Annual Fuel Use: (GAL/hr)

Calculations Summary - Propane

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate			Pollution Control Efficiency (%)	Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	(tpy)	CO ₂ e (typ)		(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	61.4600	135.4959	243.89	1,068.25	1,068.25	0.00%	243.89	1,068.25	1,068.25	243.89	1,068.25	1,068.25	-	-
CH ₄	21	0.0030	0.0066	0.01	0.05	1.10	0.00%	0.01	0.05	1.10	0.01	0.05	1.10	-	-
N ₂ O	310	0.0006	0.0013	0.00	0.01	3.23	0.00%	0.00	0.01	3.23	0.00	0.01	3.23	-	-
HFCs															
PFCs															
SF ₆	23,900														
Total CO ₂ e	Calculated Eq. A-1					1,072.58				1,072.58			1,072.58		-

Worst-Case Emission Summary:

GHG Pollutant	Uncontrolled Emission Rate			Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	243.89	1,068.25	1,068.25	243.89	1,068.25	1,068.25	243.89	1,068.25	1,068.25	-	-
CH ₄	0.01	0.05	1.10	0.01	0.05	1.10	0.01	0.05	1.10	-	-
N ₂ O	0.00	0.01	3.23	0.00	0.01	3.23	0.00	0.01	3.23	-	-
HFCs											
PFCs											
SF ₆											
Total CO ₂ e			1,072.58			1,072.58			1,072.58		-

Operating Limitations, if applicable:
None

- Use this form to calculate emissions for processes or units that cannot be accounted for in the process/unit specific emissions calculation forms.
- Duplicate this form as necessary to identify all emission units, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 005
Emission Unit Description: Corona Treater for C-3
Stack/Vent Designation Number: SV 006
Control Equipment Identification Number: _____
Control Equipment Description: _____
Process Type: Continuous
Operating Capacity: 5 kW
Source of Emission Factors: Manufacturer
Actual Annual Operating Hours: _____ Hrs

Calculations Summary

Pollutant	Emission Factors	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Ozone	0.0730000	(Lbs/kW hr)	0.37	1.6	0.0	0.00%	1.6	1.6	0.0

Operating Limitations, if applicable:
None

- Use this form to calculate emissions from painting and coating operations.
- Attach sheets to show all calculations, and duplicate this form for each booth/operation or attach sheets with equivalent information.
- Use the External Combustion Calculation Form EC-08 to calculate emissions from any fuel-fired curing ovens used in this process.

AQ Facility ID No.: 05300477
 AQ File No.: 2393
 Facility Name: Ritrama, Inc.
 Emission Unit Identification Number: EU 004 Seg 1
 Emission Unit Description: Coating Line C-6
 Stack/Vent Designation Number: SV 005
 Control Equipment Identification Number: _____
 Control Equipment Description: _____
 Application Method: Web Coating
 Number of Spray Ports in Booth: _____
 Oven Curing, if applicable: _____
 Number of Ovens: 3
 Oven Fuels (if fuel fired): Natural Gas / Propane
 Total Maximum Rated Heat Input of Ovens: 13.5 MM Btu/hr
 Maximum Adhesive Application Rate: 975 (Lbs/hr)
 Minimum Volatile Retention Rate: 0.0% (%)

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Adhesive):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	3.03%	29.56	129.5	0%	29.56	129.5		129.5

Operating Limitations, if applicable:

The Facility accepts a facility-wide VOC emission limit of less than or equal to 225 tons for any 12-month period to avoid major source status under 40 CFR 52.21

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 004 Seg 1
Emission Unit Description: Coating Line C-6
Stack/Vent Designation Number: SV 005
Control Equipment Identification Number: -
Control Equipment Description: -
Application Method: Web Coating
Number of Spray Ports in Booth: -
Maximum Adhesive Application Rate: 975 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential Emissions (Adhesive):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0600%	0.5850	2.5623	0%	2.5623	2.5623
Methanol	67-56-1	0.0170%	0.1658	0.7260	0%	0.7260	0.7260
Acetaldehyde	75-07-0	0.0500%	0.4875	2.1353	0%	2.1353	2.1353
Dichloromethane	75-09-2		0.0000	0.0000	0%	0.0000	0.0000
Acrylic Acid	79-10-7	0.0139%	0.1355	0.5936	0%	0.5936	0.5936
Methyl Methacrylate	80-62-6	0.0273%	0.2662	1.1658	0%	1.1658	1.1658
Ethyl Benzene	100-41-4	0.0009%	0.0088	0.0384	0%	0.0384	0.0384
Styrene	100-42-5	0.0170%	0.1658	0.7260	0%	0.7260	0.7260
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0%	0.0000	0.0000
Ethylene Glycol	107-21-1	0.0998%	0.9726	4.2598	0%	4.2598	4.2598
Vinyl Acetate	108-05-4	0.3222%	3.1418	13.7613	0%	13.7613	9.0000
Toluene	108-88-3		0.0000	0.0000	0%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0%	0.0000	0.0000
Triethylamine	121-44-8		0.0000	0.0000	0%	0.0000	0.0000
1,4-Dioxane	123-91-1	0.0030%	0.0293	0.1281	0%	0.1281	0.1281
Ethyl Acrylate	140-88-5		0.0000	0.0000	0%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0%	0.0000	0.0000
Xylene	1330-20-7	0.0004%	0.0039	0.0171	0%	0.0171	0.0171
Glycol Ethers		0.0875%	0.8531	3.7367	0%	3.7367	3.7367

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2
For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate combustion emissions for each furnace, oven, or dryer, or attach sheets with equivalent information.
- Use Form Form EC-13C to calculate emissions of hazardous air pollutants (HAPs) from external combustion of fuels.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 004 Seg 2
Emission Unit Description: Coating Line C-6
Stack/Vent Identification Number: SV 005
Control Equipment Identification Number: _____
Control Equipment Description: _____
Maximum Rated Burner Capacity: 13.50 (MM BTU/hr) 3 @ 4.5MM
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 12,857 (CF/hr)
2-Year Average Actual Annual Fuel Use: _____ (CF)

Calculations Summary - Natural Gas

Pollutant	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0000076	(Lbs/CF)	0.10	0.4	0.0	0.00%	0.4	0.4	0.0
PM10	0.0000076	(Lbs/CF)	0.10	0.4	0.0	0.00%	0.4	0.4	0.0
PM2.5	0.0000076	(Lbs/CF)	0.10	0.4	0.0	0.00%	0.4	0.4	0.0
SOx	0.0000006	(Lbs/CF)	0.01	0.0	0.0	0.00%	0.0	0.0	0.0
NOx	0.0001000	(Lbs/CF)	1.29	5.6	0.0	0.00%	5.6	5.6	0.0
VOC	0.0000055	(Lbs/CF)	0.07	0.3	0.0	0.00%	0.3	0.3	0.0
CO	0.0000840	(Lbs/CF)	1.08	4.7	0.0	0.00%	4.7	4.7	0.0
Lead	5.00E-10	(Lbs/CF)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Back-Up Fuel Type:

Heat Value:

Fuel Consumption Rate:

Fuel Parameters:

2-Year Average Actual Annual Fuel Use:

Propane

91,500 (BTU/gal)

AP-42 1.5 (07/08)

148 (GAL/hr)

10 Sulfur Content (gr/100 ft3) - Typical

(GAL)

Calculations Summary - Propane

Pollutant	Emission Factors AP-42 1.5 (07/08) & Fire SCC 10301002 - Using VOC Revoked	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0007000	(Lbs/Gallon)	0.10	0.5	0.0	0.00%	0.5	0.5	0.0
PM10	0.0007000	(Lbs/Gallon)	0.10	0.5	0.0	0.00%	0.5	0.5	0.0
PM2.5	0.0007000	(Lbs/Gallon)	0.10	0.5	0.0	0.00%	0.5	0.5	0.0
SOx	0.0001000	(Lbs/Gallon)*S	0.15	0.6	0.0	0.00%	0.6	0.6	0.0
NOx	0.0130000	(Lbs/Gallon)	1.92	8.4	0.0	0.00%	8.4	8.4	0.0
VOC	0.0004700	(Lbs/Gallon)	0.07	0.3	0.0	0.00%	0.3	0.3	0.0
CO	0.0075000	(Lbs/Gallon)	1.11	4.8	0.0	0.00%	4.8	4.8	0.0
Lead	0.0000000	(Lbs/Gallon)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Worst-Case Emission Summary:

Pollutant	Emissions Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.10	0.5	0.0	0.5	0.5	0.0
PM10	0.10	0.5	0.0	0.5	0.5	0.0
PM2.5	0.10	0.5	0.0	0.5	0.5	0.0
SOx	0.15	0.6	0.0	0.6	0.6	0.0
NOx	1.92	8.4	0.0	8.4	8.4	0.0
VOC	0.07	0.3	0.0	0.3	0.3	0.0
CO	1.11	4.8	0.0	4.8	4.8	0.0
Lead	0.00	0.0	0.0	0.0	0.0	0.0

Operating Limitations, if applicable:

None

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 004 Seg 2
Emission Unit Description: Coating Line C-6
Stack/Vent Identification Number: SV 005
Control Equipment Identification Number: -
Control Equipment Description: -
Maximum Rated Burner Capacity: 13.50 (MM BTU/hr) 3 @ 4.5MM
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 12,857 (CF/hr)
2-Year Average Actual Annual Fuel Use: - (CF)

Calculations Summary - Natural Gas

HAP Name (CAS)	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Arsenic (7440-38-2)	2.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Benzene (71-43-2)	2.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Beryllium (7440-41-7)	1.20E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Cadmium (7440-43-9)	1.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Chromium (7440-47-3)	1.40E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Cobalt (7440-48-4)	8.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Dichlorobenzene (25321-22-6)	1.20E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Formaldehyde (50-00-0)	7.50E-08	(Lbs/CF)	0.0010	0.0042	0.0000	0.00%	0.0042	0.0042	0.0000
Lead (7439-92-1)	5.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Manganese (7439-96-5)	3.80E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Mercury (7439-97-6)	2.60E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
N-Hexane (110-54-3)	1.80E-06	(Lbs/CF)	0.0231	0.1014	0.0000	0.00%	0.1014	0.1014	0.0000
Naphthalene (91-20-3)	6.10E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Nickel (7440-02-0)	2.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Polycyclic Organic Matter	8.82E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Selenium (7782-49-2)	2.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Toluene (108-88-3)	3.40E-09	(Lbs/CF)	0.0000	0.0002	0.0000	0.00%	0.0002	0.0002	0.0000
Total			0.0243	0.1063	0.0000		0.1063	0.1063	0.0000

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate the potential and actual greenhouse gas (GHG) emissions for each operation contributing to GHG emissions.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 004 Seg 2
Emission Unit Description: Coating Line C-6
Stack/Vent Identification Number: SV 005
Control Equipment Identification Number:
Control Equipment Description:
Maximum Rated Burner Capacity: 13.50 (MM BTU/hr) Total Facility
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 12,857 (CF/hr)
2-Year Average Actual Annual Fuel Use: (CF/hr)

Calculations Summary - Natural Gas

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate		Pollution Control Efficiency (%)	Controlled Emission Rate		Limited Controlled Emission Rate		Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	CO ₂ e (typ)		(lb/hr)	CO ₂ e (typ)	(lb/hr)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	53.0200	116.8890	1,578.00	6,911.64	0.00%	1,578.00	6,911.64	1,578.00	6,911.64	-	-
CH ₄	21	0.0010	0.0022	0.03	0.13	0.00%	0.03	0.13	0.03	0.13	-	-
N ₂ O	310	0.0001	0.0002	0.00	0.01	0.00%	0.00	0.01	0.00	0.01	-	-
HFCs												
PFCs												
SF ₆	23,900											
Total CO ₂ e	Calculated Eq. A-1				6,918.42			6,918.42		6,918.42		-

Back-Up Fuel Type: Propane
Heat Value: 91,500 (BTU/gal) AP-42 1.5 (07/08)
Fuel Consumption Rate: 148 (GAL/hr)
Fuel Parameters: 10 Sulfur Content (gr/100 ft3) - Typical
2-Year Average Actual Annual Fuel Use: (GAL/hr)

Calculations Summary - Propane

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate		Pollution Control Efficiency (%)	Controlled Emission Rate		Limited Controlled Emission Rate		Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	CO ₂ e (typ)		(lb/hr)	CO ₂ e (typ)	(lb/hr)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	61.4600	135.4959	1,829.20	8,011.88	0.00%	1,829.20	8,011.88	1,829.20	8,011.88	-	-
CH ₄	21	0.0030	0.0066	0.09	0.39	0.00%	0.09	0.39	0.09	0.39	-	-
N ₂ O	310	0.0006	0.0013	0.02	0.08	0.00%	0.02	0.08	0.02	0.08	-	-
HFCs												
PFCs												
SF ₆	23,900											
Total CO ₂ e	Calculated Eq. A-1				8,044.33			8,044.33		8,044.33		-

Worst-Case Emission Summary:

GHG Pollutant	Uncontrolled Emission Rate			Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1,829.20	8,011.88	8,011.88	1,829.20	8,011.88	8,011.88	1,829.20	8,011.88	8,011.88	-	-
CH ₄	0.09	0.39	8.21	0.09	0.39	8.21	0.09	0.39	8.21	-	-
N ₂ O	0.02	0.08	24.25	0.02	0.08	24.25	0.02	0.08	24.25	-	-
HFCs											
PFCs											
SF ₆											
Total CO ₂ e			8,044.33			8,044.33			8,044.33		-

Operating Limitations, if applicable:
None

- Use this form to calculate emissions for processes or units that cannot be accounted for in the process/unit specific emissions calculation forms.
- Duplicate this form as necessary to identify all emission units, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 006
Emission Unit Description: Corona Treater for C-6
Stack/Vent Designation Number: SV 007
Control Equipment Identification Number: _____
Control Equipment Description: _____
Process Type: Continuous
Operating Capacity: 10 kW
Source of Emission Factors: Manufacturer
Actual Annual Operating Hours: _____ Hrs

Calculations Summary

Pollutant	Emission Factors	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Ozone	0.0730000	(Lbs/kW hr)	0.73	3.2	0.0	0.00%	3.2	3.2	0.0

Operating Limitations, if applicable:
None

- Use this form to calculate emissions from painting and coating operations.
- Attach sheets to show all calculations, and duplicate this form for each booth/operation or attach sheets with equivalent information.
- Use the External Combustion Calculation Form EC-08 to calculate emissions from any fuel-fired curing ovens used in this process.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 1
Emission Unit Description: Coating Line C-7
Stack/Vent Designation Number: SV 008
Control Equipment Identification Number: CE 009
Control Equipment Description: Regenerative Thermal Oxidizer (RTO)
Application Method: Web Coating
Number of Spray Ports in Booth: _____
Oven Curing, if applicable: _____
 Number of Ovens: 11 + RTO
 Oven Fuels (if fuel fired): Natural Gas / Propane
 Total Maximum Rated Heat Input of Ovens: 14.7 MM Btu/hr
Maximum Adhesive Application Rate: 1000 (Lbs/hr)
Maximum Primer Application Rate: 195 (Lbs/hr)
Maximum Topcoat Application Rate: 195 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Adhesive):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	69.71%	697.12	3053.4	95.00%	34.86	152.7		152.7

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Primer):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	90.00%	175.50	768.7	95.00%	8.78	38.4		38.4

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Topcoat):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	94.86%	184.97	810.2	95.00%	9.25	40.5		40.5

Total Potential-to-Emit:

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC		1057.60	4632.3		52.88	231.6		225.0

Operating Limitations, if applicable:

The Facility accepts a facility-wide VOC emission limit of less than or equal to 225 tons for any 12-month period to avoid major source status under 40 CFR 52.21

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 1
Emission Unit Description: Coating Line C-7
Stack/Vent Designation Number: SV 008
Control Equipment Identification Number: CE 009
Control Equipment Description: Regenerative Thermal Oxidizer (RTO)
Application Method: Web Coating
Number of Spray Ports in Booth: -
Maximum Adhesive Application Rate: 1000 (Lbs/hr)
Maximum Primer Application Rate: 195 (Lbs/hr)
Maximum Topcoat Application Rate: 195 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential Emissions (Adhesive):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.1000%	1.0000	4.3800	98.00%	0.0876	0.0876
Methanol	67-56-1	3.6000%	36.0000	157.6800	98.00%	3.1536	3.1536
Acetaldehyde	75-07-0		0.0000	0.0000	98.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	98.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	98.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Benzene	100-41-4	1.0300%	10.3000	45.1140	98.00%	0.9023	0.9023
Styrene	100-42-5		0.0000	0.0000	98.00%	0.0000	0.0000
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	98.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	98.00%	0.0000	0.0000
Vinyl Acetate	108-05-4	4.8000%	48.0000	210.2400	98.00%	4.2048	4.2048
Toluene	108-88-3	36.3600%	363.6000	1592.5680	98.00%	31.8514	9.0000
Chlorobenzene	108-90-7	0.0125%	0.1250	0.5475	98.00%	0.0110	0.0110
Hexane	110-54-3	15.1300%	151.3000	662.6940	98.00%	13.2539	9.0000
Triethylamine	121-44-8		0.0000	0.0000	98.00%	0.0000	0.0000
1,4-Dioxane	123-91-1		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5	0.2343%	2.3430	10.2623	98.00%	0.2052	0.2052
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	98.00%	0.0000	0.0000
Xylene	1330-20-7	4.7600%	47.6000	208.4880	98.00%	4.1698	4.1698
Glycol Ethers			0.0000	0.0000	98.00%	0.0000	0.0000

Potential Emissions (Primer):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0275%	0.0536	0.2347	98.00%	0.0047	0.0047
Methanol	67-56-1	0.0019%	0.0036	0.0159	98.00%	0.0003	0.0003
Acetaldehyde	75-07-0		0.0000	0.0000	98.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	98.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	98.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	98.00%	0.0000	0.0000
Styrene	100-42-5		0.0000	0.0000	98.00%	0.0000	0.0000
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	98.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	98.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	98.00%	0.0000	0.0000
Toluene	108-88-3		0.0000	0.0000	98.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	98.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	98.00%	0.0000	0.0000
Triethylamine	121-44-8	0.2914%	0.5683	2.4890	98.00%	0.0498	0.0498
1,4-Dioxane	123-91-1		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	98.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	98.00%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	98.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	98.00%	0.0000	0.0000

Potential Emissions (Topcoat):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0		0.0000	0.0000	98.00%	0.0000	0.0000
Methanol	67-56-1		0.0000	0.0000	98.00%	0.0000	0.0000
Acetaldehyde	75-07-0		0.0000	0.0000	98.00%	0.0000	0.0000
Dichloromethane	75-09-2	7.9200%	15.4440	67.6447	98.00%	1.3529	1.3529
Acrylic Acid	79-10-7		0.0000	0.0000	98.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	98.00%	0.0000	0.0000
Styrene	100-42-5		0.0000	0.0000	98.00%	0.0000	0.0000
Methylene Diphenyl Diisocyanate	101-68-8	0.1170%	0.2282	0.9993	98.00%	0.0200	0.0200
Ethylene Glycol	107-21-1		0.0000	0.0000	98.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	98.00%	0.0000	0.0000
Toluene	108-88-3	34.3200%	66.9240	293.1271	98.00%	5.8625	5.8625
Chlorobenzene	108-90-7		0.0000	0.0000	98.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	98.00%	0.0000	0.0000
Triethylamine	121-44-8		0.0000	0.0000	98.00%	0.0000	0.0000
1,4-Dioxane	123-91-1		0.0000	0.0000	98.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	98.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9	0.0020%	0.0040	0.0174	98.00%	0.0003	0.0003
Xylene	1330-20-7		0.0000	0.0000	98.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	98.00%	0.0000	0.0000

Total Potential Emissions:

Volatile HAP Name	CAS	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	1.0536	4.6147	0.0923	0.0923
Methanol	67-56-1	36.0036	157.6959	3.1539	3.1539
Acetaldehyde	75-07-0	0.0000	0.0000	0.0000	0.0000
Dichloromethane	75-09-2	15.4440	67.6447	1.3529	1.3529
Acrylic Acid	79-10-7	0.0000	0.0000	0.0000	0.0000
Methyl Methacrylate	80-62-6	0.0000	0.0000	0.0000	0.0000
Ethyl Benzene	100-41-4	10.3000	45.1140	0.9023	0.9023
Styrene	100-42-5	0.0000	0.0000	0.0000	0.0000
Methylene Diphenyl Diisocyanate	101-68-8	0.2282	0.9993	0.0200	0.0200
Ethylene Glycol	107-21-1	0.0000	0.0000	0.0000	0.0000
Vinyl Acetate	108-05-4	48.0000	210.2400	4.2048	4.2048
Toluene	108-88-3	430.5240	1885.6951	37.7139	9.0000
Chlorobenzene	108-90-7	0.1250	0.5475	0.0110	0.0110
Hexane	110-54-3	151.3000	662.6940	13.2539	9.0000
Triethylamine	121-44-8	0.5683	2.4890	0.0498	0.0498
1,4-Dioxane	123-91-1	0.0000	0.0000	0.0000	0.0000
Ethyl Acrylate	140-88-5	2.3430	10.2623	0.2052	0.2052
2,4-Toluene Diisocyanate	584-84-9	0.0040	0.0174	0.0003	0.0003
Xylene	1330-20-7	47.6000	208.4880	4.1698	4.1698
Glycol Ethers		0.0000	0.0000	0.0000	0.0000

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate emissions from painting and coating operations.
- Attach sheets to show all calculations, and duplicate this form for each booth/operation or attach sheets with equivalent information.
- Use the External Combustion Calculation Form EC-08 to calculate emissions from any fuel-fired curing ovens used in this process.

AQ Facility ID No.: 05300477
 AQ File No.: 2393
 Facility Name: Ritrama, Inc.
 Emission Unit Identification Number: EU 007 Seg 2
 Emission Unit Description: Coating Line C-7
 Stack/Vent Designation Number: SV 012, SV 013, SV 014
 Control Equipment Identification Number: _____
 Control Equipment Description: _____
 Application Method: Web Coating
 Number of Spray Ports in Booth: _____
 Oven Curing, if applicable: _____
 Number of Ovens: 11 + RTO
 Oven Fuels (if fuel fired): Natural Gas / Propane
 Total Maximum Rated Heat Input of Ovens: 14.7 MM Btu/hr
 Maximum Adhesive Application Rate: 1000 (Lbs/hr)
 Maximum Primer Application Rate: 195 (Lbs/hr)
 Maximum Topcoat Application Rate: 195 (Lbs/hr)
 Minimum Volatile Retention Rate: 0.0% (%)

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Adhesive):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	3.03%	30.32	132.8	0.00%	30.32	132.8		132.8

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Primer):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	1.20%	2.34	10.2	0.00%	2.34	10.2		10.2

Potential-to-Emit and Maximum Hourly Allowable Emissions Calculations Summary (Topcoat):

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC	9.78%	19.08	83.6	0.00%	19.08	83.6		83.6

Total Potential-to-Emit:

Pollutant	Maximum Coating VOC Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (Overall %)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)	Hourly Emission Rate Allowed	Limited Controlled Emissions (tons/yr)
VOC		51.73	226.6		51.73	226.6		225.0

Operating Limitations, if applicable:

The Facility accepts a facility-wide VOC emission limit of less than or equal to 225 tons for any 12-month period to avoid major source status under 40 CFR 52.21

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 2
Emission Unit Description: Coating Line C-7
Stack/Vent Designation Number: SV 012, SV 013, SV 014
Control Equipment Identification Number: -
Control Equipment Description: -
Application Method: Web Coating
Number of Spray Ports in Booth: -
Maximum Adhesive Application Rate: 1000 (Lbs/hr)
Maximum Primer Application Rate: 195 (Lbs/hr)
Maximum Topcoat Application Rate: 195 (Lbs/hr)
Minimum Volatile Retention Rate: 0.0% (%)

Potential Emissions (Adhesive):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0600%	0.6000	2.6280	0.00%	2.6280	2.6280
Methanol	67-56-1	0.0170%	0.1700	0.7446	0.00%	0.7446	0.7446
Acetaldehyde	75-07-0	0.0500%	0.5000	2.1900	0.00%	2.1900	2.1900
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7	0.0139%	0.1390	0.6088	0.00%	0.6088	0.6088
Methyl Methacrylate	80-62-6	0.0273%	0.2730	1.1957	0.00%	1.1957	1.1957
Ethyl Benzene	100-41-4	0.0009%	0.0090	0.0394	0.00%	0.0394	0.0394
Styrene	100-42-5	0.0170%	0.1700	0.7446	0.00%	0.7446	0.7446
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1	0.0998%	0.9975	4.3691	0.00%	4.3691	4.3691
Vinyl Acetate	108-05-4	0.3222%	3.2224	14.1141	0.00%	14.1141	9.0000
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8		0.0000	0.0000	0.00%	0.0000	0.0000
1,4-Dioxane	123-91-1	0.0030%	0.0300	0.1314	0.00%	0.1314	0.1314
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7	0.0004%	0.0040	0.0175	0.00%	0.0175	0.0175
Glycol Ethers		0.0875%	0.8750	3.8325	0.00%	3.8325	3.8325

Potential Emissions (Primer):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0962%	0.1876	0.8216	0.00%	0.8216	0.8216
Methanol	67-56-1	0.0065%	0.0127	0.0555	0.00%	0.0555	0.0555
Acetaldehyde	75-07-0		0.0000	0.0000	0.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	0.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	0.00%	0.0000	0.0000
Styrene	100-42-5	0.0065%	0.0126	0.0553	0.00%	0.0553	0.0553
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	0.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	0.00%	0.0000	0.0000
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8	1.2000%	2.3400	10.2492	0.00%	10.2492	9.0000
1,4-Dioxane	123-91-1		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	0.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	0.00%	0.0000	0.0000

Potential Emissions (Topcoat):

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.0769%	0.1499	0.6565	0.00%	0.6565	0.6565
Methanol	67-56-1	0.0052%	0.0101	0.0444	0.00%	0.0444	0.0444
Acetaldehyde	75-07-0		0.0000	0.0000	0.00%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	0.00%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	0.00%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	0.00%	0.0000	0.0000
Styrene	100-42-5	0.0028%	0.0055	0.0241	0.00%	0.0241	0.0241
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0.00%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	0.00%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	0.00%	0.0000	0.0000
Toluene	108-88-3		0.0000	0.0000	0.00%	0.0000	0.0000
Chlorobenzene	108-90-7		0.0000	0.0000	0.00%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0.00%	0.0000	0.0000
Triethylamine	121-44-8	0.8150%	1.5892	6.9607	0.00%	6.9607	6.9607
1,4-Dioxane	123-91-1		0.0000	0.0000	0.00%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	0.00%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0.00%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	0.00%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	0.00%	0.0000	0.0000

Total Potential Emissions:

Volatile HAP Name	CAS	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0	0.9375	4.1061	4.1061	4.1061
Methanol	67-56-1	0.1928	0.8445	0.8445	0.8445
Acetaldehyde	75-07-0	0.5000	2.1900	2.1900	2.1900
Dichloromethane	75-09-2	0.0000	0.0000	0.0000	0.0000
Acrylic Acid	79-10-7	0.1390	0.6088	0.6088	0.6088
Methyl Methacrylate	80-62-6	0.2730	1.1957	1.1957	1.1957
Ethyl Benzene	100-41-4	0.0090	0.0394	0.0394	0.0394
Styrene	100-42-5	0.1881	0.8240	0.8240	0.8240
Methylene Diphenyl Diisocyanate	101-68-8	0.0000	0.0000	0.0000	0.0000
Ethylene Glycol	107-21-1	0.9975	4.3691	4.3691	4.3691
Vinyl Acetate	108-05-4	3.2224	14.1141	14.1141	9.0000
Toluene	108-88-3	0.0000	0.0000	0.0000	0.0000
Chlorobenzene	108-90-7	0.0000	0.0000	0.0000	0.0000
Hexane	110-54-3	0.0000	0.0000	0.0000	0.0000
Triethylamine	121-44-8	3.9292	17.2099	17.2099	9.0000
1,4-Dioxane	123-91-1	0.0300	0.1314	0.1314	0.1314
Ethyl Acrylate	140-88-5	0.0000	0.0000	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9	0.0000	0.0000	0.0000	0.0000
Xylene	1330-20-7	0.0040	0.0175	0.0175	0.0175
Glycol Ethers		0.8750	3.8325	3.8325	3.8325

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate combustion emissions for each furnace, oven, or dryer, or attach sheets with equivalent information.
- Use Form Form EC-13C to calculate emissions of hazardous air pollutants (HAPs) from external combustion of fuels.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 3
Emission Unit Description: Coating Line C-7
Stack/Vent Identification Number: SV 008, SV 012, SV 013, SV 014
Control Equipment Identification Number: _____
Control Equipment Description: _____
Maximum Rated Burner Capacity: 14.70 (MM BTU/hr) 3 @ 1.5MM, 4 @ 0.8MM, 4 @ 0.5MM + RTO @ 5MM
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 14,000 (CF/hr)
2-Year Average Actual Annual Fuel Use: _____ (CF)

Calculations Summary - Natural Gas

Pollutant	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0000076	(Lbs/CF)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
PM10	0.0000076	(Lbs/CF)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
PM2.5	0.0000076	(Lbs/CF)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
SOx	0.0000006	(Lbs/CF)	0.01	0.0	0.0	0.00%	0.0	0.0	0.0
NOx	0.0001000	(Lbs/CF)	1.40	6.1	0.0	0.00%	6.1	6.1	0.0
VOC	0.0000055	(Lbs/CF)	0.08	0.3	0.0	0.00%	0.3	0.3	0.0
CO	0.0000840	(Lbs/CF)	1.18	5.2	0.0	0.00%	5.2	5.2	0.0
Lead	5.00E-10	(Lbs/CF)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Back-Up Fuel Type:

Heat Value:

Fuel Consumption Rate:

Fuel Parameters:

2-Year Average Actual Annual Fuel Use:

Propane

91,500 (BTU/gal)

AP-42 1.5 (07/08)

161 (GAL/hr)

10 Sulfur Content (gr/100 ft3) - Typical

(GAL)

Calculations Summary - Propane

Pollutant	Emission Factors AP-42 1.5 (07/08) & Fire SCC 10301002 - Using VOC Revoked	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.0007000	(Lbs/Gallon)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
PM10	0.0007000	(Lbs/Gallon)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
PM2.5	0.0007000	(Lbs/Gallon)	0.11	0.5	0.0	0.00%	0.5	0.5	0.0
SOx	0.0001000	(Lbs/Gallon)*S	0.16	0.7	0.0	0.00%	0.7	0.7	0.0
NOx	0.0130000	(Lbs/Gallon)	2.09	9.1	0.0	0.00%	9.1	9.1	0.0
VOC	0.0004700	(Lbs/Gallon)	0.08	0.3	0.0	0.00%	0.3	0.3	0.0
CO	0.0075000	(Lbs/Gallon)	1.20	5.3	0.0	0.00%	5.3	5.3	0.0
Lead	0.0000000	(Lbs/Gallon)	0.00	0.0	0.0	0.00%	0.0	0.0	0.0

Worst-Case Emission Summary:

Pollutant	Emissions Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
PM	0.11	0.5	0.0	0.5	0.5	0.0
PM10	0.11	0.5	0.0	0.5	0.5	0.0
PM2.5	0.11	0.5	0.0	0.5	0.5	0.0
SOx	0.16	0.7	0.0	0.7	0.7	0.0
NOx	2.09	9.1	0.0	9.1	9.1	0.0
VOC	0.08	0.3	0.0	0.3	0.3	0.0
CO	1.20	5.3	0.0	5.3	5.3	0.0
Lead	0.00	0.0	0.0	0.0	0.0	0.0

Operating Limitations, if applicable:

None

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 3
Emission Unit Description: Coating Line C-7
Stack/Vent Identification Number: SV 008, SV 012, SV 013, SV 014
Control Equipment Identification Number: -
Control Equipment Description: -
Maximum Rated Burner Capacity: 14.70 (MM BTU/hr) 3 @ 1.5MM, 4 @ 0.8MM, 4 @ 0.5MM + RTO @ 5MM
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 14,000 (CF/hr)
2-Year Average Actual Annual Fuel Use: - (CF)

Calculations Summary - Natural Gas

HAP Name (CAS)	Emission Factors AP-42 1.4 (07/98) & Fire SCC 10300603	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Arsenic (7440-38-2)	2.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Benzene (71-43-2)	2.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Beryllium (7440-41-7)	1.20E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Cadmium (7440-43-9)	1.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Chromium (7440-47-3)	1.40E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Cobalt (7440-48-4)	8.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Dichlorobenzene (25321-22-6)	1.20E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Formaldehyde (50-00-0)	7.50E-08	(Lbs/CF)	0.0011	0.0046	0.0000	0.00%	0.0046	0.0046	0.0000
Lead (7439-92-1)	5.00E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Manganese (7439-96-5)	3.80E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Mercury (7439-97-6)	2.60E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
N-Hexane (110-54-3)	1.80E-06	(Lbs/CF)	0.0252	0.1104	0.0000	0.00%	0.1104	0.1104	0.0000
Naphthalene (91-20-3)	6.10E-10	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Nickel (7440-02-0)	2.10E-09	(Lbs/CF)	0.0000	0.0001	0.0000	0.00%	0.0001	0.0001	0.0000
Polycyclic Organic Matter	8.82E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Selenium (7782-49-2)	2.40E-11	(Lbs/CF)	0.0000	0.0000	0.0000	0.00%	0.0000	0.0000	0.0000
Toluene (108-88-3)	3.40E-09	(Lbs/CF)	0.0000	0.0002	0.0000	0.00%	0.0002	0.0002	0.0000
Total			0.0264	0.1158	0.0000		0.1158	0.1158	0.0000

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

- Use this form to calculate the potential and actual greenhouse gas (GHG) emissions for each operation contributing to GHG emissions.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 007 Seg 3
Emission Unit Description: Coating Line C-7
Stack/Vent Identification Number: SV 008, SV 012, SV 013, SV 014
Control Equipment Identification Number:
Control Equipment Description:
Maximum Rated Burner Capacity: 14.70 (MM BTU/hr) Total Facility
Primary Fuel Type: Natural Gas
Heat Value: 1,050 (BTU/cf) Per MPCA
Fuel Consumption Rate: 14,000 (CF/hr)
2-Year Average Actual Annual Fuel Use: (CF/hr)

Calculations Summary - Natural Gas

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate			Pollution Control Efficiency (%)	Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	(tpy)	CO ₂ e (typ)		(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	53.0200	116.8890	1,718.27	7,526.01	7,526.01	0.00%	1,718.27	7,526.01	7,526.01	1,718.27	7,526.01	7,526.01	-	-
CH ₄	21	0.0010	0.0022	0.03	0.14	2.98	0.00%	0.03	0.14	2.98	0.03	0.14	2.98	-	-
N ₂ O	310	0.0001	0.0002	0.00	0.01	4.40	0.00%	0.00	0.01	4.40	0.00	0.01	4.40	-	-
HFCs															
PFCs															
SF ₆	23,900														
Total CO ₂ e	Calculated Eq. A-1					7,533.39				7,533.39			7,533.39		-

Back-Up Fuel Type: Propane
Heat Value: 91,500 (BTU/gal) AP-42 1.5 (07/08)
Fuel Consumption Rate: 161 (GAL/hr)
Fuel Parameters: 10 Sulfur Content (gr/100 ft3) - Typical
2-Year Average Actual Annual Fuel Use: (GAL/hr)

Calculations Summary - Propane

GHG Pollutant	Global Warming Potential (GWP) 40 CFR 98 Table A-1	Emission Factors 40 CFR 98 Tables C-1 & C-2		Uncontrolled Emission Rate			Pollution Control Efficiency (%)	Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
		(kg/mmBtu)	(lb/mmBtu)	(lb/hr)	(tpy)	CO ₂ e (typ)		(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1	61.4600	135.4959	1,991.79	8,724.04	8,724.04	0.00%	1,991.79	8,724.04	8,724.04	1,991.79	8,724.04	8,724.04	-	-
CH ₄	21	0.0030	0.0066	0.10	0.43	8.94	0.00%	0.10	0.43	8.94	0.10	0.43	8.94	-	-
N ₂ O	310	0.0006	0.0013	0.02	0.09	26.40	0.00%	0.02	0.09	26.40	0.02	0.09	26.40	-	-
HFCs															
PFCs															
SF ₆	23,900														
Total CO ₂ e	Calculated Eq. A-1					8,759.39				8,759.39			8,759.39		-

Worst-Case Emission Summary:

GHG Pollutant	Uncontrolled Emission Rate			Controlled Emission Rate			Limited Controlled Emission Rate			Actual Controlled Emission Rate	
	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(lb/hr)	(tpy)	CO ₂ e (typ)	(tpy)	CO ₂ e (typ)
CO ₂	1,991.79	8,724.04	8,724.04	1,991.79	8,724.04	8,724.04	1,991.79	8,724.04	8,724.04	-	-
CH ₄	0.10	0.43	8.94	0.10	0.43	8.94	0.10	0.43	8.94	-	-
N ₂ O	0.02	0.09	26.40	0.02	0.09	26.40	0.02	0.09	26.40	-	-
HFCs											
PFCs											
SF ₆											
Total CO ₂ e			8,759.39			8,759.39			8,759.39		-

Operating Limitations, if applicable:
None

- Use this form to calculate emissions for processes or units that cannot be accounted for in the process/unit specific emissions calculation forms.
- Duplicate this form as necessary to identify all emission units, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 008
Emission Unit Description: Corona Treater 1 for C-7
Stack/Vent Designation Number: SV 009
Control Equipment Identification Number: _____
Control Equipment Description: _____
Process Type: Continuous
Operating Capacity: 15 kW
Source of Emission Factors: Manufacturer
Actual Annual Operating Hours: _____ Hrs

Calculations Summary

Pollutant	Emission Factors	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Ozone	0.0730000	(Lbs/kW hr)	1.10	4.8	0.0	0.00%	4.8	4.8	0.0

Operating Limitations, if applicable:
None

- Use this form to calculate emissions for processes or units that cannot be accounted for in the process/unit specific emissions calculation forms.
- Duplicate this form as necessary to identify all emission units, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 009
Emission Unit Description: Corona Treater 2 for C-7
Stack/Vent Designation Number: SV 010
Control Equipment Identification Number: _____
Control Equipment Description: _____
Process Type: Continuous
Operating Capacity: 15 kW
Source of Emission Factors: Manufacturer
Actual Annual Operating Hours: _____ Hrs

Calculations Summary

Pollutant	Emission Factors	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Ozone	0.0730000	(Lbs/kW hr)	1.10	4.8	0.0	0.00%	4.8	4.8	0.0

Operating Limitations, if applicable:
None

- Use this form to calculate emissions for processes or units that cannot be accounted for in the process/unit specific emissions calculation forms.
- Duplicate this form as necessary to identify all emission units, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: EU 010
Emission Unit Description: Corona Treater 3 for C-7
Stack/Vent Designation Number: SV 011
Control Equipment Identification Number: _____
Control Equipment Description: _____
Process Type: Continuous
Operating Capacity: 10 kW
Source of Emission Factors: Manufacturer
Actual Annual Operating Hours: _____ Hrs

Calculations Summary

Pollutant	Emission Factors	Emission Factor Units	Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Ozone	0.0730000	(Lbs/kW hr)	0.73	3.2	0.0	0.00%	3.2	3.2	0.0

Operating Limitations, if applicable:
None

- Duplicate this form as necessary, or attach sheets with equivalent information.
- If the clean-up materials contain Hazardous Air Pollutants (HAPs), fill out and attach form EC-13A.

AQ Facility ID No.: 05300477
Facility Name: Ritrama, Inc.

Calculations Summary for Clean-Up Materials:

Clean-Up Materials	Maximum Amount Used** (gal/hr)	Actual Amount Used* (gal/yr)	Maximum VOC Content (lbs/gal)	Actual VOC Content (lbs/gal)	Maximum Uncontrolled Emissions (tons/yr)	Actual Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)	Actual Controlled Emissions (tons/yr)
Methyl Ethyl Ketone	0.28	1168.75	6.76	6.76	8.3	4.0	0.00%	8.3	8.3	4.0
Iso-Propanol	0.06	237	6.58	6.58	1.6	0.8	0.00%	1.6	1.6	0.8
Waldorf Blend	0.01	52	7.02	7.02	0.4	0.2	0.00%	0.4	0.4	0.2
TOTAL:	0.4	1457.5			10.3	4.9		10.3	10.3	4.9

Operating Limitations, if applicable:

The Facility accepts a facility-wide VOC emission limit of less than or equal to 225 tons for any 12-month period to avoid major source status under 40 CFR 52.21

* Actual Amount Used from Facility Usage Records from 2007 - 2010; Assumes conservative evaporation loss of 25%

** Maximum Amount Used Calculated Based on Actual Amount Used at 16 hours/day, 5 days per week = 4160 hours/year

- Duplicate this form as necessary, or attach sheets with equivalent information.

AQ Facility ID No.: 05300477
AQ File No.: 2393
Facility Name: Ritrama, Inc.
Emission Unit Identification Number: _____
Emission Unit Description: Cleaning - Waldorf Blend
Stack/Vent Designation Number: _____
Control Equipment Identification Number: _____
Control Equipment Description: _____
Maximum Material Usage Rate: 0.09 (Lbs/hr)

Potential Emissions:

Volatile HAP Name	CAS	Maximum HAP Content (Wt %)	Maximum Uncontrolled Emissions (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)	Limited Controlled Emissions (tons/yr)
Formaldehyde	50-00-0		0.0000	0.0000	0%	0.0000	0.0000
Methanol	67-56-1		0.0000	0.0000	0%	0.0000	0.0000
Acetaldehyde	75-07-0		0.0000	0.0000	0%	0.0000	0.0000
Dichloromethane	75-09-2		0.0000	0.0000	0%	0.0000	0.0000
Acrylic Acid	79-10-7		0.0000	0.0000	0%	0.0000	0.0000
Methyl Methacrylate	80-62-6		0.0000	0.0000	0%	0.0000	0.0000
Ethyl Benzene	100-41-4		0.0000	0.0000	0%	0.0000	0.0000
Styrene	100-42-5		0.0000	0.0000	0%	0.0000	0.0000
Methylene Diphenyl Diisocyanate	101-68-8		0.0000	0.0000	0%	0.0000	0.0000
Ethylene Glycol	107-21-1		0.0000	0.0000	0%	0.0000	0.0000
Vinyl Acetate	108-05-4		0.0000	0.0000	0%	0.0000	0.0000
Toluene	108-88-3	15.0000%	0.0131	0.0572	0%	0.0572	0.0572
Chlorobenzene	108-90-7		0.0000	0.0000	0%	0.0000	0.0000
Hexane	110-54-3		0.0000	0.0000	0%	0.0000	0.0000
Triethylamine	121-44-8		0.0000	0.0000	0%	0.0000	0.0000
1,4-Dioxane	123-91-1		0.0000	0.0000	0%	0.0000	0.0000
Ethyl Acrylate	140-88-5		0.0000	0.0000	0%	0.0000	0.0000
2,4-Toluene Diisocyanate	584-84-9		0.0000	0.0000	0%	0.0000	0.0000
Xylene	1330-20-7		0.0000	0.0000	0%	0.0000	0.0000
Glycol Ethers			0.0000	0.0000	0%	0.0000	0.0000

Operating Limitations, if applicable:

The Facility accepts a facility-wide HAP emission limit of less than or equal to 9.0 tons for any individual HAP and 22.5 tons for any combination of HAPs for any 12-month period to avoid major source status under 40 CFR 70.2

For any HAP with a maximum controlled PTE of greater than 9.0 tons per year, the limited controlled emissions for that HAP has been set to 9.0 tons per year

ATTACHMENT 2
FACILITY DESCRIPTION
(Available Electronically in Delta)



FACILITY DESCRIPTION: BUILDINGS (BG)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Added By (Action)	Retired By (Action)	Operator ID for Item	Length (feet)	Width (feet)	Roof Height from Ground (feet)	Description/Comment	Building Status
1	BG 001	PER 004		001	420	240	20	Facility Building	Active



FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (°F)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
1	SV 002	Active	PER 001				22	1.3				Manufacturer	Up, No Cap
2	SV 002	Removec	PER 004				22	1.3		5066	117	Manufacturer	Up, No Cap
3	SV 003	Active	PER 001				22	1.3				Manufacturer	Up, No Cap
4	SV 003	Removec	PER 004				22	1.3		5066	117	Manufacturer	Up, No Cap
5	SV 004	Active	PER 001				22	1.3				Estimate	Up, No Cap
6	SV 004	Active	PER 004			Coating Line C-3 Dryer	22.2	0.8	0.7	4000	130	Test	Horizontal
7	SV 005	Active	PER 001				22	1.3				Estimate	Up, No Cap
8	SV 005	Active	PER 004			Coating Line C-6 Dryer	28.3	2.8	1.9	18000	155	Test	Horizontal
9	SV 006	Active	PER 001				22	.83				Manufacturer	Up, No Cap
10	SV 006	Active	PER 004			Corona Treater for Coating Line C-3	21.8	0.7	0.7	835	80	Test	Horizontal
11	SV 007	Active	PER 001				22	.83				Manufacturer	Up, No Cap
12	SV 007	Active	PER 004			Corona Treater for Coating Line C-6	23.3	0.8	0.8	1025	95	Test	Horizontal
13	SV 008	Active	PER 002				40	5.0		32000	135	Manufacturer	Up, No Cap
14	SV 008	Active	PER 004			Coating Line C-7	30	4.8		33200	260	Test	Up, No Cap
15	SV 009	Active	PER 002				22	1.3		5000	125	Manufacturer	Up, No Cap
16	SV 009	Active	PER 004			Corona Treater #1 for Coating Line C-7	31.5	0.8		1185	85	Test	Up, No Cap
17	SV 010	Active	PER 004			Corona Treater #2 for Coating Line C-7	31.5	0.8		1290	85	Test	Up, No Cap
18	SV 011	Active	PER 004			Corona Treater #3 for Coating Line C-7	26.3	0.8		650	90	Test	Up, With Cap
19	SV 012	Active	PER 004			Coating Line C-7, H2O Based Primer Dryer	37.9	2.2	2.2	11700	210	Test	Horizontal
20	SV 013	Active	PER 004			Coating Line C-7, H2O Based Topcoat Dryer	36.5	1.7	1.7	4500	210	Test	Horizontal
21	SV 014	Active	PER 004			Coating Line C-7, H2O Based Adhesive Dryer	43.6	3.3	3.3	41000	210	Test	Horizontal



FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collection Efficiency (%)	Afterburner Combustion Parameters
1	CE 009	Active	PER 003			099	Regenerative Thermal Oxidizer	MEGTEC	Enterprise II	VOC	100	98	
2	CE 009	Active	PER 004			099	Regenerative Thermal Oxidizer	MEGTEC	Enterprise II	HAPvol VOC VOC	100 100 100	98 98 95	



FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignificant Activity	Operator ID for Item	Stack/Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
1	EU 002	Active	PER 001		<input type="checkbox"/>		SV 002 (M) SV 003 (M)		Coating Line C-2			2672			Ft3	Min	
2	EU 002	Removed	PER 004		<input type="checkbox"/>				Coating Line C-2			2672			Ft3	Min	
3	EU 003	Active	PER 001		<input type="checkbox"/>		SV 004 (M)		Coating Line C-3			2672			Ft3	Min	
4	EU 003	Active	PER 004		<input type="checkbox"/>		SV 004 (M)		Coating Line C-3	Various	Various	2672	100	Product	Ft	Min	1.8
5	EU 004	Active	PER 001		<input type="checkbox"/>		SV 005 (M)		Coating Line C-6			2672			Ft3	Min	
6	EU 004	Active	PER 004		<input type="checkbox"/>		SV 005 (M)		Coating Line C-6	Various	Various	2672	300	Product	Ft	Min	13.5
7	EU 005	Active	PER 001		<input type="checkbox"/>		SV 006 (M)		Corona Treater No. 1 for coating line C-3			2672			Ft3	Min	
8	EU 005	Active	PER 004		<input type="checkbox"/>		SV 006 (M)		Corona Treater for Coating Line C-3	Enercon	Various	2672	5	Elect Energy	Kw		
9	EU 006	Active	PER 001		<input type="checkbox"/>		SV 007 (M)		Corona Treater No. 2 for coating line C-6			2672			Ft3	Min	
10	EU 006	Active	PER 004		<input type="checkbox"/>		SV 007 (M)		Corona Treater for Coating Line C-6	Enercon	Various	2672	10	Elect Energy	Kw		
11	EU 007	Active	PER 002		<input type="checkbox"/>		SV 008 (M)	CE 009	Coating Line C-7	Bachofen & Meier	575X576X-Monza	2672	32000		Ft3	Min	4.6
12	EU 007	Active	PER 004		<input type="checkbox"/>		SV 008 (M) SV 012 (B) SV 013 (B) SV 014 (B)	CE 009	Coating Line C-7	Bachofen & Meier	575X576X-Monza	2672	300	Product	Ft	Min	14.7
13	EU 008	Active	PER 002		<input type="checkbox"/>		SV 009 (M)		Corona Treater for coating line C-7	Enercon	S.O 9115	2672	1.05		Ft3	Min	11
14	EU 008	Active	PER 004		<input type="checkbox"/>		SV 009 (M)		Corona Treater #1 for Coating Line C-7	Enercon	Various	2672	15	Elect Energy	Kw		
15	EU 009	Active	PER 004		<input type="checkbox"/>		SV 010 (M)		Corona Treater #2 for Coating Line C-7	Enercon	Various	2672	15	Elect Energy	Kw		
16	EU 010	Active	PER 004		<input type="checkbox"/>		SV 011 (M)		Corona Treater #3 for Coating Line C-7	Enercon	Various	2672	10	Elect Energy	Kw		

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Commence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
1	EU 002	Active	PER 001	09/01/1984	09/01/1984					
2	EU 002	Removed	PER 004	09/01/1984	09/01/1984	04/01/2005				
3	EU 003	Active	PER 001	01/01/1987	01/01/1987					
4	EU 003	Active	PER 004	01/01/1987	01/01/1987					
5	EU 004	Active	PER 001	03/01/1992	10/01/1992					
6	EU 004	Active	PER 004	03/01/1992	10/01/1992					
7	EU 005	Active	PER 001	01/13/1993	05/15/1993					
8	EU 005	Active	PER 004	05/01/1993	05/15/1993					
9	EU 006	Active	PER 001	01/13/1993	05/20/1993					
10	EU 006	Active	PER 004	05/01/1993	05/20/1993					
11	EU 007	Active	PER 002	09/01/1999	09/30/1999					
12	EU 007	Active	PER 004	09/01/1999	09/30/1999					
13	EU 008	Active	PER 002	09/01/1999	09/30/1999					
14	EU 008	Active	PER 004	09/01/1999	09/30/1999					
15	EU 009	Active	PER 004	09/01/1999	09/30/1999					
16	EU 010	Active	PER 004	03/01/2004	03/31/2004					



MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

16 July, 2012 08:19

FACILITY DESCRIPTION: STORAGE TANKS (TK)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Tank Status	Added By (Action)	Retired By (Action)	Insignif- icant Activity	Operator ID for Item	Control Equip. ID No(s).	Product Stored	Interior Height (ft.)	Interior Diameter (ft.)	Capacity (1000 gal)	Construction Type
--	--------	----------------	-------------------------	---------------------------	--------------------------------	----------------------------	--------------------------------	----------------	-----------------------------	-------------------------------	------------------------	-------------------

FACILITY DESCRIPTION: STORAGE TANKS (TK)

	ID No.	Tank Status	Added By (Action)	Support Type (floating roof only)	Column Count	Column Diameter (ft.)	Deck Type (floating roof only)	Seal Type (floating roof only)	Year Installed	Year Removed
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FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Fugitive Source Status	Added By (Action)	Retired By (Action)	Insignif- icant Activity	Operator ID for Item	Pollutant(s) Emitted	Control Equip. ID No(s).	Fugitive Source Description	Year Installed	Year Removed
1	FS 001	Active	PER 004		<input type="checkbox"/>		VOC		Clean-Up Materials		



MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

16 July, 2012 08:19

FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Group Status	Added By (Action)	Retired By (Action)	Include in EI	Operator ID for Item	Group Description	Group Items
1	GP 001	Active	PER 004		<input type="checkbox"/>		40 CFR Section 63, Subp. JJJJ Affected Units	EU 003, EU 004, EU 007
2	GP 002	Active	PER 004		<input type="checkbox"/>		Post-1969 Industrial Process Equipment Affected Units	EU 003, EU 004, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 003							
	Carbon Dioxide Equivalent	PER 004		2.45E+02	1.07E+03	1.07E+03	
	Carbon Monoxide	PER 004		1.50E-01	6.50E-01	6.50E-01	
	Nitrogen Oxides	PER 004		2.60E-01	1.12E+00	1.12E+00	
	PM < 2.5 micron	PER 004		1.00E-02	6.00E-02	6.00E-02	
	PM < 10 micron	PER 004		1.00E-02	6.00E-02	6.00E-02	
	Total Particulate Matter	PER 004		1.00E-02	6.00E-02	6.00E-02	
	Sulfur Dioxide	PER 004		2.00E-02	9.00E-02	9.00E-02	
	Volatile Organic Compounds	PER 004		9.86E+00	4.32E+01		
EU 004							
	Carbon Dioxide Equivalent	PER 004		1.84E+03	8.04E+03	8.04E+03	
	Carbon Monoxide	PER 004		1.11E+00	4.85E+00	4.85E+00	
	Nitrogen Oxides	PER 004		1.92E+00	8.40E+00	8.40E+00	
	PM < 2.5 micron	PER 004		1.00E-01	4.50E-01	4.50E-01	
	PM < 10 micron	PER 004		1.00E-01	4.50E-01	4.50E-01	
	Total Particulate Matter	PER 004		1.00E-01	4.50E-01	4.50E-01	
	Sulfur Dioxide	PER 004		1.50E-01	6.50E-01	6.50E-01	
	Volatile Organic Compounds	PER 004		2.96E+01	1.30E+02		
EU 005							
	Ozone	PER 004		3.70E-01	1.60E+00	1.60E+00	
EU 006							
	Ozone	PER 004		7.30E-01	3.20E+00	3.20E+00	
EU 007							
	Carbon Dioxide Equivalent	PER 004		2.00E+03	8.76E+03	8.76E+03	
	Carbon Monoxide	PER 004		1.20E+00	5.28E+00	5.28E+00	
	Nitrogen Oxides	PER 004		2.09E+00	9.15E+00	9.15E+00	
	PM < 2.5 micron	PER 004		1.10E-01	4.90E-01	4.90E-01	
	PM < 10 micron	PER 004		1.10E-01	4.90E-01	4.90E-01	
	Total Particulate Matter	PER 004		1.10E-01	4.90E-01	4.90E-01	
	Sulfur Dioxide	PER 004		1.60E-01	7.00E-01	7.00E-01	
	Volatile Organic Compounds	PER 004		5.30E+01	4.63E+03		
EU 008							
	Ozone	PER 004		1.10E+00	4.80E+00	4.80E+00	
EU 009							
	Ozone	PER 004		1.10E+00	4.80E+00	4.80E+00	
EU 010							
	Ozone	PER 004		7.30E-01	3.20E+00	3.20E+00	
FS 001							
	Volatile Organic Compounds	PER 004		2.36E+00	1.03E+01		
GP 001							
	HAPs - Total	PER 004				2.25E+01	
	HAP-Single	PER 004				9.00E+00	
	Volatile Organic Compounds	PER 004				2.25E+02	



FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	Monitor Status	Added By (Action)	Retired By (Action)	Monitored Item (ID No(s).)	Operator ID for Item	Monitor Description	Manufacturer	Model Number	Serial Number	Parameters Monitored
1	MR 001	Active	PER 004		CE 009		RTO Temperature Strip Chart Monitor	Yokogawa	436006	12V829198	Temp
2	MR 002	Active	PER 004		CE 009		RTO Temperature Electronic Monitor	Yokogawa	DX102-1	12B811672	Temp

FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capability?	Optical Path Length Ratio	Installation Date	Removal Date
1	MR 001	Active	PER 004		2100	Yes		09/01/1999	
2	MR 002	Active	PER 004		2100	Yes		02/03/2003	



FACILITY DESCRIPTION: DATA ACQUISITION SYSTEMS (DA)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	DAS Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Data Acquisition System Description	Manufacturer	Model Number	Serial Number	Data Storage Medium	Installation Date	Removal Date
1	DA 001	Active	PER 004		B	RTO Temperature Strip Chart Recorder	Yokogawa	436006	12V829198	Paper Tape	09/01/1999	
2	DA 002	Active	PER 004		P	RTO Temperature Electronic Recorder	Yokogawa	DX102-1	12B811672	Electronic	02/03/2003	



FACILITY DESCRIPTION: CONTINUOUS MONITORING SYSTEMS (CM)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 05300477

Facility Name: Ritrama Inc

	ID No.	CMS Status	Added By (Action)	Retired By (Action)	Monitor ID No(s).	DAS ID No(s).	Operator ID for Item	CMS Description	Parameter	Month/ Year Installed	Month/ Year Removed	Cert. Date	Cert. Basis
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ATTACHMENT 3
CD-01 FORMS
(Available Electronically in Delta)



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: Total Facility

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	SOURCE-SPECIFIC REQUIREMENTS
2.0		CD	40 CFR pt. 60, subp. RR; 40 CFR pt. 63, subp. JJJJ; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subps. 4 and 5	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.
3.0		CD	hdr	OPERATIONAL REQUIREMENTS
4.0		CD	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.
5.0		CD	Minn. R. 7011.0020	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.
6.0		CD	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.
7.0		CD	Minn. R. 7007.0800, subps. 14 and 16(J)	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.
8.0		CD	Minn. R. 7019.1000, subp. 4	Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.
9.0		CD	Minn. R. 7011.0150	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.
10.0		CD	Minn. R. 7030.0010 - 7030.0080	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.
11.0		CD	Minn. R. 7007.0800, subp. 9(A)	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).
12.0		CD	Minn. R. 7007.0800, subp. 16	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.
13.0		CD	hdr	PERFORMANCE TESTING
14.0		CD	Minn. R. ch. 7017	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

15.0		CD	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2	<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>
16.0		CD	Minn. R. 7017.2025, subp. 3	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.
17.0		CD	hdr	MONITORING REQUIREMENTS
18.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (any requirements applying to continuous emission monitors are listed separately in this permit).
19.0		CD	Minn. R. 7007.0800, subp. 4(D)	Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.
20.0		CD	hdr	RECORDKEEPING
21.0		CD	Minn. R. 7007.0800, subp. 5(C)	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).
22.0		CD	Minn. R. 7007.0800, subp. 5(B)	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.
23.0		CD	Minn. R. 7007.1200, subp. 4	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.
24.0		CD	hdr	REPORTING/SUBMITTALS
25.0		CD	Minn. R. 7019.1000, subp. 3	<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

26.0		CD	Minn. R. 7019.1000, subp. 2	<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>
27.0		CD	Minn. R. 7019.1000, subp. 1	Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.
28.0		CD	Minn. R. 7019.1000, subp. 1	<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.
29.0		S/A	Minn. R. 7007.0800, subp. 6(A)(2)	Semiannual Deviations Report: due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.
30.0		CD	Minn. R. 7007.1150 - 7007.1500	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.
31.0		S/A	Minn. R. 7007.0400, subp. 2	Application for Permit Reissuance: due 180 days before expiration of Existing Permit
32.0		CD	Minn. R. 7007.1400, subp. 1(H)	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).
33.0		S/A	Minn. R. 7007.0800, subp. 6(C)	Compliance Certification: due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.
34.0		CD	Minn. R. 7019.3000 - 7019.3100	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.
35.0		CD	Minn. R. 7002.0005 - 7002.0095	Emission Fees: due 60 days after receipt of an MPCA bill.
36.0		CD	40 CFR pt. 68	<p>The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever your facility fully updates and resubmits their RMP. Submit RMPs to the Risk Management Plan Reporting Center, P.O. Box 1515, Lanham-Seabrook, Maryland 20703-1515. RMP information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346.</p>



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: GP 001 40 CFR Section 63, Subp. JJJJ Affected Units

Associated Items: EU 003 Coating Line C-3

EU 004 Coating Line C-6

EU 007 Coating Line C-7

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EMISSION AND OPERATIONAL LIMITS
2.0		CD	40 CFR Section 63.3321(a); Minn. R. 7011.7385	For the thermal oxidizer used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee shall comply with the applicable operating limits established according to 40 CFR Section 63.3360(e)(3)(i). See CE 009 for additional limits, monitoring, and recordkeeping.
3.0		LIMIT	40 CFR Section 63.3320(b)(2); Minn. R. 7011.7385	HAPs - Organic: less than or equal to 4.0 percent by weight of the mass of coating materials applied for each calendar month for the collection of all web coating lines (as defined in 40 CFR Section 63.3310). (less than 4.0% organic HAP by weight of the mass of applied materials).
4.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 63.2	HAP-Single: less than or equal to 9.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (i.e. coatings, solvents, cleaners,...) shall be determined as described under the Material Content requirement in GP 001. The calculation of HAP usage may take into account recovered/recycled HAPs as described under the Waste Credit requirement in GP 001.
5.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 63.2	HAPs - Total: less than or equal to 22.5 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (i.e. coatings, solvents, cleaners,...) shall be determined as described under the Material Content requirement in GP 001. The calculation of HAPs used may take into account recovered/recycled HAPs as described under the Waste Credit requirement in GP 001.
6.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000	Volatile Organic Compounds: less than or equal to 225 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in GP 001. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in GP 001.
7.0		CD	hdr	MONITORING AND RECORDKEEPING (see CE 009 for additional requirements)
8.0		CD	40 CFR Section 63.3350(c); Minn. R. 7011.7385	Bypass and coating use monitoring: The Permittee must monitor bypasses of control device CE 009 and the mass of each coating material applied at each work station associated with these control devices during each bypass. The Permittee must demonstrate that any coating material applied on a never-controlled or an intermittently-controlled work station operated in bypass mode is allowed in the compliance demonstration according to 40 CFR Section 63.3370(n) and (o).
9.0		CD	40 CFR Section 63.3350(c)(1); Minn. R. 7011.7385	Bypass Monitoring on CE 009: The Permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.
10.0		CD	40 CFR Section 63.3350(c)(1); Minn. R. 7011.7385	Bypass Monitoring Continued: The Permittee shall record the following for each flow control position indicator: 1) the time and flow control position, at least once per hour; and 2) the time and flow control position every time the flow direction is changed.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

11.0		CD	40 CFR Section 63.3350(e)(5)-(7); Minn. R. 7011.7385	The Permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the following requirements: 1) The Permittee must record the results of each inspection, calibration, and validation check of the indicator. 2) At all times, the Permittee must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. 3) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), the Permittee must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in 40 CFR Section 63.3370.
12.0		CD	40 CFR Section 63.3350(e)(5)-(7); Minn. R. 7011.7385	Continued The Permittee must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
13.0		CD	40 CFR Section 63.3350(d), (e), and (f); Minn. R. 7011.7385	The Permittee shall comply with the requirements of 40 CFR Section 63.3350(d), (e), and (f) for each applicable control device and capture systems. See CE 009 for the individual requirements.
14.0		CD	40 CFR Section 63.3410(a); 40 CFR Section 63.10(b)(1); Minn. R. 7011.7385	The Permittee shall maintain the following records on a monthly basis: (1) Records specified in 40 CFR Section 63.10(b)(2) of all measurements need to demonstrate compliance, including: (i) control device and capture system operating parameter data in accordance with 40 CFR Section 63.3350(c), (e), and (f); (ii) overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with 40 CFR Section 63.3360(e) and (f); (continued below)
15.0		CD	40 CFR Section 63.3410(a); 40 CFR Section 63.10(b)(1); Minn. R. 7011.7385	(iii) material usage, organic HAP usage, volatile matter usage, and coating solids usage (as required elsewhere in Table A) and compliance demonstrations using these data in accordance with 40 CFR Section 63.3370(d). (2) Records specified in 40 CFR Section 63.10(c) for each CMS operated in accordance with 40 CFR Section 63.3350(b).
16.0		CD	Title I Condition: To avoid major source classification under 40 CFR 52.21 and 63.2; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 and 5	Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coatings and other VOC, solids (as required elsewhere in Table A), and HAP containing materials used at the facility. This shall be based on written or electronic usage logs and delivery records.
17.0		CD	Minn. R. 7007.0800, subps. 4 and 5	Monthly Recordkeeping -- VOC Emissions. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents (as required elsewhere in Table A) of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.
18.0		CD	Minn. R. 7007.0800, subps. 4 and 5	Monthly Calculation -- VOC Emissions. The Permittee shall calculate VOC emissions using the following equations: VOC emissions (tons/month) = V - W + Constant VOC emissions (tons/month, Coating Line C-7) = (V - W) * (1 - CE) + Constant $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3 + \dots$



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

19.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Monthly VOC Emissions Calculation Continued:</p> <p>where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; D# = weight percent of VOC in C#, as a fraction; CE = VOC control efficiency of the regenerative thermal oxidizer (CE 009), as a fraction; and Constant = the value from the table in Appendix D that represents VOC emissions in tons/month from combustion units EU 003, EU 004, and EU 007.</p>
20.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Monthly Recordkeeping - HAP Emissions. By the 15th of the month, the Permittee shall calculate and record the following using the formulas specified in this permit:</p> <p>1). The total HAP-containing materials used in the previous calendar month using the daily usage records. This record shall also include the individual and total HAP contents of each HAP-containing material used in the previous month, as determined by the Material Content requirement of this permit;</p> <p>2). The total and individual HAP emissions for the previous month using the formulas specified in this permit; and</p> <p>3). The 12-month rolling sum total and individual HAP emissions for the previous 12-month period by summing the monthly emissions data for the previous 12 months.</p>
21.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Monthly Calculation -- HAP Emissions. The Permittee shall calculate each individual HAP and total HAP emissions using the following equations:</p> <p>HAP Emissions (tons/month) = H - W + Constant HAP Emissions (tons/month, Coating Line C-7) = (H - W) * (1 - CE) + Constant</p> <p>H = (A1 x B1) + (A2 x B2) + (A3 x B3) + W = (C1 x D1) + (C2 x D2) + (C3 x D3) +</p>
22.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Monthly HAP Emissions Calculation Continued:</p> <p>Where: H = the amount of each pollutant (either total HAP or each individual HAP), used, in tons/month; A# = Amount of each HAP-containing material used in the previous month, in tons/month; B# = weight percent of each individual or total HAP in A#, as a fraction (e.g., 50% is 0.50); W = the amount of each pollutant (either total HAP or each individual HAP) shipped in waste, in tons/month; C# = amount, in tons/month, of each HAP-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; D# = weight percent of each individual or total HAP in C#, as a fraction; CE = HAP control efficiency of the regenerative thermal oxidizer (CE 009), as a fraction; and Constant = the value from the table in Appendix D that represents HAP emissions (either total HAP or each individual HAP) in tons/month from combustion units EU 003, EU 004, and EU 007.</p>
23.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Material Content. VOC and HAPs contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC and HAPs. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.</p>



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

24.0		CD	Minn. R. 7007.0800, subps. 4 and 5	<p>Waste Credit: If the Permittee elects to obtain credit for VOC, solids, and/or HAPs shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or individual and total HAP content for each credited shipment.</p> <p>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, each individual HAP, and total HAP, excluding water.</p> <p>2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials.</p>
25.0		CD	Minn. R. 7005.0100, subp. 35a	<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP001. These assumptions are listed in Appendix C of this permit. Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150.</p>
26.0		CD	hdr	NESHAP MONITORING AND RECORDKEEPING
27.0		CD	40 CFR Section 63.3370(a)(6)(ii); Minn. R. 7011.7385	<p>The Permittee is using a combination of compliant coatings and one or more intermittently-controlled work stations. The Permittee must demonstrate that the average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating materials on a monthly average as-applied basis using the procedures set forth in this permit (from 40 CFR Section 63.3370(g) and (n)).</p>
28.0		CD	40 CFR Section 63.3370(n)(5); Minn. R. 7011.7385	<p>By the end of each calendar month, the Permittee shall calculate the following for the previous calendar month:</p> <p>1) the total organic HAP emitted by summing the HAP emissions calculated for all units subject to 40 CFR pt. 63, subp. JJJJ as detailed earlier in this permit (EU 003, EU 004 and EU 007);</p> <p>2) the total mass of each as-purchased coating material applied during the month;</p> <p>3) the total mass of each material added to as-purchased coating material during the month;</p> <p>and</p> <p>3) the total organic HAP emission rate based on coating materials applied using Equation 10 of Appendix A of this permit.</p>
29.0		CD	40 CFR Section 63.3370(n)(6); Minn. R. 7011.7385	<p>The affected source is in compliance with the emission standards in 40 CFR Section 63.3320(b) for the month if all operating parameters required to be monitored were maintained at the values established under 40 CFR Sections 63.3350 and 63.3360 and if the total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg coating materials applied.</p>
30.0		CD	40 CFR Section 63.3340; Minn. R. 7011.7385	<p>The Permittee shall comply with the provisions of subpart A of 40 CFR pt. 63 that apply to 40 CFR pt. 63, subp. JJJJ.</p>
31.0		CD	hdr	REPORTING
32.0		S/A	40 CFR Section 63.3400(c); Minn. R. 7011.7385	<p>Compliance Status Report: due 31 days after end of each calendar half-year starting 12/05/2005. The report shall contain the information specified in Table A of this permit, under GP 001.</p>
33.0		CD	40 CFR Section 63.3400(c)(2); Minn. R. 7011.7385	<p>Content of Semiannual Compliance Status Report: At a minimum, the report shall include:</p> <p>1) Company name and address;</p> <p>2) A statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report;</p> <p>3) Date of report and beginning and ending dates of the reporting period;</p> <p>4) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted; and</p> <p>5) For each deviation from an emission limitation (emission limit or operating limit) that applies to you, the information listed in 40 CFR Section 63.3400(c)(2)(v)(A)-(C).</p>



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: GP 002 Post-1969 Industrial Process Equipment Affected Units

Associated Items: EU 003 Coating Line C-3
EU 004 Coating Line C-6
EU 005 Corona Treater for Coating Line C-3
EU 006 Corona Treater for Coating Line C-6
EU 007 Coating Line C-7
EU 008 Corona Treater #1 for Coating Line C-7
EU 009 Corona Treater #2 for Coating Line C-7
EU 010 Corona Treater #3 for Coating Line C-7

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	Requirements for GP 002 apply separately to each Emission Unit (EU) listed in GP 002.
2.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.
3.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: EU 003 Coating Line C-3

Associated Items: GP 001 40 CFR Section 63, Subp. JJJJ Affected Units
GP 002 Post-1969 Industrial Process Equipment Affected Units
SV 004 Coating Line C-3 Dryer

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	40 CFR pt. 60, subp. RR Requirements
2.0		CD	40 CFR Section 60.440(b); Minn. R. 7011.2560	This Coating Line is an affected facility (per 40 CFR Section 60.440) which has taken limits to avoid the emissions limits in 40 CFR Section 60.442(a). If the VOC input exceeds the limit in any 12-month period, the coating line is then subject to additional requirements in 40 CFR pt. 60, subp. RR, and the Permittee must obtain the appropriate permit amendment to add these requirements to the permit.
3.0		LIMIT	40 CFR Section 60.440(b); Minn. R. 7011.2560	Volatile Organic Compounds: less than or equal to 49.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit is on all solvent applied in the coating process input. This means all organic solvent contained in the coating formulations that are metered into the coating applicator from the formulation area.
4.0		CD	40 CFR Section 60.445(a); Minn. R. 7011.2560	Monthly Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used at EU 003 and the results of the reference test methods specified in 40 CFR Section 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
5.0		CD	40 CFR Section 60.445(d); Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 4 and 5	Monthly Recordkeeping -- VOC Applied in Coatings. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total tons of each coating used in the previous month using the daily records and formulation specifications required by this permit; 2) The VOC applied in coatings for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC applied in coatings for the previous 12-month period by summing the monthly VOC application data for the previous 12 months.
6.0		CD	40 CFR Sections 60.445(a) and 60.446(a); Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 4 and 5	Monthly Calculations -- VOC Applied in Coatings. The Permittee shall calculate the VOC applied in coatings, in tons/month, by the 15th of the month for the previous month using the following method: $\text{VOC} = [(W1 \times M1) + (W2 \times M2) + (W3 \times M3) + \dots] / 2000$ <p>where: M# = the total mass, in pounds, of each coating (#) applied during the calendar month; and W# = the weight fraction of volatile organics in coating M#.</p> <p>The value of W# shall be obtained from either a U.S. EPA Reference Method 24 test or manufacturer's formulation data.</p>
7.0		CD	hdr	40 CFR pt. 63, subp. JJJJ Requirements
8.0		CD	40 CFR Section 63.3370(n)(4); Minn. R. 7011.7385	Compliance Demonstration for Uncontrolled Unit (EU 003) The Permittee must determine the organic HAP applied on this web coating line using Equation 6 of Appendix A of this permit. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: EU 004 Coating Line C-6

Associated Items: GP 001 40 CFR Section 63, Subp. JJJJ Affected Units
GP 002 Post-1969 Industrial Process Equipment Affected Units
SV 005 Coating Line C-6 Dryer

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	40 CFR pt. 60, subp. RR Requirements
2.0		CD	40 CFR Section 60.440(b); Minn. R. 7011.2560	This Coating Line is an affected facility (per 40 CFR Section 60.440) which has taken limits to avoid the emissions limits in 40 CFR Section 60.442(a). If the VOC input exceeds the limit in any 12-month period, the coating line is then subject to additional requirements in 40 CFR pt. 60, subp. RR, and the Permittee must obtain the appropriate permit amendment to add these requirements to the permit.
3.0		LIMIT	40 CFR Section 60.440(b); Minn. R. 7011.2560	Volatile Organic Compounds: less than or equal to 49.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit is on all solvent applied in the coating process input. This means all organic solvent contained in the coating formulations that are metered into the coating applicator from the formulation area.
4.0		CD	40 CFR Section 60.445(a); Minn. R. 7011.2560	Monthly Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used at EU 004 and the results of the reference test methods specified in 40 CFR Section 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
5.0		CD	40 CFR Section 60.445(d); Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 4 and 5	Monthly Recordkeeping -- VOC Applied in Coatings. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total tons of each coating used in the previous month using the daily records and formulation specifications required by this permit; 2) The VOC applied in coatings for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC applied in coatings for the previous 12-month period by summing the monthly VOC application data for the previous 12 months.
6.0		CD	40 CFR Sections 60.445(a) and 60.446(a); Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 4 and 5	Monthly Calculations -- VOC Applied in Coatings. The Permittee shall calculate the VOC applied in coatings, in tons/month, by the 15th of the month for the previous month using the following method: $\text{VOC} = [(W1 \times M1) + (W2 \times M2) + (W3 \times M3) + \dots] / 2000$ <p>where: M# = the total mass, in pounds, of each coating (#) applied during the calendar month; and W# = the weight fraction of volatile organics in coating M#.</p> <p>The value of W# shall be obtained from either a U.S. EPA Reference Method 24 test or manufacturer's formulation data.</p>
7.0		CD	hdr	40 CFR pt. 63, subp. JJJJ Requirements
8.0		CD	40 CFR Section 63.3370(n)(4); Minn. R. 7011.7385	Compliance Demonstration for Uncontrolled Units (EU 004) The Permittee must determine the organic HAP applied on these web coating lines using Equation 6 of Appendix A of this permit. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: EU 007 Coating Line C-7

Associated Items: CE 009 Regenerative Thermal Oxidizer
GP 001 40 CFR Section 63, Subp. JJJJ Affected Units
GP 002 Post-1969 Industrial Process Equipment Affected Units
SV 008 Coating Line C-7
SV 012 Coating Line C-7, H2O Based Primer Dryer
SV 013 Coating Line C-7, H2O Based Topcoat Dryer
SV 014 Coating Line C-7, H2O Based Adhesive Dryer

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EU 007 is an intermittently-controlled work station that uses water-based and solvent-based coatings. However, the fumes from the solvent-drying process are routed to a thermal oxidizer (CE 009) when solvent-based coatings are used. Regardless of when the unit is operating, under the solvent-based coating scenario the Permittee must operate the thermal oxidizer (CE 009).
2.0		CD	hdr	EMISSION AND OPERATIONAL LIMITS
3.0		CD	40 CFR Section 60.442(a); Minn. R. 7011.2560	The Permittee subject to 40 CFR pt. 60, subp. RR shall: (1) Cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month; or (2) Demonstrate for each affected facility; (i) A 90 percent overall VOC emission reduction as calculated over a calendar month; or (ii) the percent overall VOC emissions reduction specified in 40 CFR Section 60.443(b) as calculated over a calendar month.
4.0		CD	hdr	MONITORING AND RECORDKEEPING
5.0		CD	40 CFR Section 60.443(a); Minn. R. 7011.2560	Monitoring: If meeting the emission standard in 40 CFR Section 60.442(a)(1) or 60.442(a)(2)(ii), the Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR Section 60.443(a)(2).
6.0		CD	40 CFR Section 60.443(b); Minn. R. 7011.2560	To determine compliance with 40 CFR Section 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, R _q , according to the equation in 40 CFR Section 60.443(b). If R _q is less than or equal to 90 percent, then the required overall VOC emission reduction is R _q . If R _q is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.
7.0		CD	40 CFR Section 60.443(d); Minn. R. 7011.2560	Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR Section 60.443(b) to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR Section 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test.
8.0		CD	40 CFR Section 60.443(f); Minn. R. 7011.2560	Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for EU 007, and the actual VOC percentage reduction achieved for EU 007.
9.0		CD	40 CFR Section 60.443(j); Minn. R. 7011.2560	Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR Section 60.442(a)(2) is being attained.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

10.0		CD	40 CFR Section 60.445(a); Minn. R. 7011.2560	Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR Section 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
11.0		CD	40 CFR Section 60.445(h); Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 5(C)	The Permittee shall maintain and retain records of the measurements required in 40 CFR Sections 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional 3 years, for a total of 5 years from the date of generation.
12.0		CD	40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1; Minn. R. 7007.0800, subp. 5(C)	Recordkeeping: The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR pt. 60 part recorded in a permanent form suitable for inspection. The file shall be retained for at least 2 years following the date of such measurements, maintenance, reports, and records. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional 3 years, for a total of 5 years from the date of generation.
13.0		CD	40 CFR Section 60.11(d); Minn. R. 7017.2015, subp. 2(B)	At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment 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 MPCA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
14.0		CD	40 CFR Section 60.12; Minn. R. 7011.0050	The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
15.0		CD	40 CFR Section 60.13(b); Minn. R. 7017.1010, subp. 1(A)	All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR Section 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
16.0		CD	40 CFR Section 60.13(f); Minn. R. 7017.1010, subp. 1(A)	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR pt. 60 shall be used.
17.0		S/A	40 CFR Section 60.447(c) and 60.7(c); Minn. R. 7011.2560 and 7019.0100, subp. 1	Report: due 30 days after end of each calendar year starting 01/01/2011. The Permittee shall submit reports semiannually when the CE 009 temperature drops as defined under 40 CFR Section 63.443(e). If no such periods occur, the Permittee shall state this in the report. The report shall be submitted with the Semiannual Deviations Report listed in Table B of this permit.
18.0		CD	40 CFR Section 60.440(a) and (c); Minn. R. 7011.2560	This emission unit is an affected facility under 40 CFR pt. 60 subp. RR and must meet the applicable permit requirements listed below.
19.0		CD	40 CFR Section 60.440(b) ; Minn. R. 7011.2560	If VOC input exceeds 50 tons per 12-month period, EU 007 will become subject to the emission limit in 40 CFR Section 60.442(a) and all other requirements in 40 CFR pt. 60 subp RR.
20.0		CD	40 CFR Section 60.442(a)(2) ; Minn. R. 7011.2560	If VOC input exceeds 50 tons per 12 consecutive months, the Permittee shall demonstrate a 90 percent overall VOC emission reduction as calculated over a calendar month.
21.0		CD	40 CFR Section 60.443(d); 40 CFR Section 60.446(b) ; Minn. R. 7011.2560	Where compliance with the emission limit specified in 40 CFR Section 60.442(a)(2) is achieved through the use of a solvent destruction device, the Permittee shall determine calendar monthly compliance by comparing the monthly required overall VOC emission reduction to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR Section 60.442(a)(2). If the monthly required overall VOC emission reduction is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in compliance with 40 CFR Section 60.442(a)(2).



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

22.0		CD	40 CFR Section 60.443(e); Minn. R. 7011.2560	Where compliance with 40 CFR Section 60.442(a)(2) is achieved through the use of a solvent destruction device, the Permittee shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration destruction devices. For thermal incineration destruction devices the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with 40 CFR Section 60.442(a)(2).
23.0		CD	40 CFR Section 60.445(a) ; Minn. R. 7011.2560	The Permittee shall maintain a calendar month record of all coatings used in EU 007, and the results of the reference test method specified in 40 CFR Section 60.446(a) or the manufacturer's formulation data used for determining VOC content of those coatings.
24.0		CD	40 CFR Section 60.445(a); 40 CFR Section 60.446(a) ; Minn. R. 7011.2560	The Permittee shall keep, at the facility, a record of VOC use by weight for each calendar month. VOC use by weight shall be calculated by the 15th day of each month, for the previous month, using the method described in Appendix A.
25.0		CD	40 CFR Section 60.445(d) ; Minn. R. 7011.2560	The Permittee of EU 007 operating at the conditions specified in 40 CFR Section 60.440(b), shall maintain a 12-month record of the amount of solvent applied in the coating used in EU 007.
26.0		CD	40 CFR Section 60.446(a) ; Minn. R. 7011.2560	The VOC content per unit of coating solids applied shall be determined by either Reference Method 24 and the equations specified in 40 CFR Section 60.443, or by manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and manufacturer's formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as he deems appropriate. For Reference Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.
27.0		CD	hdr	40 CFR pt. 63, subp. JJJJ Requirements
28.0		CD	40 CFR Section 63.3370(n)(3); Minn. R. 7011.7385	Compliance Demonstration for Units Controlled by Thermal Oxidizer (EU 007) For each thermal oxidizer, the Permittee must: 1) Monitor the operating parameter in accordance with 40 CFR Section 63.3350(e) to ensure control device efficiency whenever a web coating line is operated; 2) For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with 40 CFR Section 63.3350(f) to ensure capture efficiency whenever a web coating line is operated; 3) Determine the oxidizer destruction efficiency using the procedure in 40 CFR Section 63.3360(e); 4) Determine the capture system capture efficiency in accordance with 40 CFR Section 63.3360(f); 5) Determine the organic HAP content of each coating material as-applied during the month following the procedures detailed earlier in this permit; 6) Determine the sum of the mass of all coating materials as-applied while operating in bypass mode (i.e., uncontrolled);
29.0		CD	40 CFR Section 63.3370(n)(3); Minn. R. 7011.7385 (cont)	(cont) 7) Determine the sum of the mass of all coating materials as-applied while operating in control mode; and 8) Calculate the organic HAP emitted during the month using Equation 15 in Appendix A.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

Subject Item: CE 009 Regenerative Thermal Oxidizer

Associated Items: EU 007 Coating Line C-7

MR 001 RTO Temperature Strip Chart Monitor

MR 002 RTO Temperature Electronic Monitor

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EMISSION AND OPERATIONAL LIMITS
2.0		CD	Minn. R. 7007.0800, subp. 2	Regenerative Thermal Oxidizer (CE 009): The Permittee is required to operate this control equipment only when the solvent based coatings are in process. The requirement to operate this control equipment when the corresponding process equipment is operating does not apply when the water based coatings are processed by EU 007.
3.0		CD	Minn. R. 7007.0800, subps. 2 and 4	Operation of Control Equipment Monitoring Equipment: The Permittee shall operate the control equipment monitoring equipment at all times the control equipment is required to operate.
4.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 60.442(a)(2)(i); Minn. R. 7011.2560	Volatile Organic Compounds: greater than or equal to 95 percent control efficiency as calculated over a calendar month for each affected facility. This limit is more stringent than, and therefore satisfies the requirements of 40 CFR Section 60.442(a)(2)(i). (40 CFR Section 60.442(a)(2)(i) requires 90 percent overall VOC emission reduction)
5.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; 40 CFR Sections 63.40-63.44; Minn. R. 7007.3010	Operate and maintain control equipment to achieve a control efficiency, as calculated over a calendar month, for HAPs - Volatile: greater than or equal to 98 percent control efficiency
6.0		CD	Minn. R. 7007.0800, subp. 2	Operation and Maintenance: The Permittee shall operate and maintain CE 009 according to the control equipment manufacturer's specifications and the facility operation and maintenance plan.
7.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Table 1 (item 1.a) of 40 CFR pt. 63, subp. JJJJ; 40 CFR Section 63.3321(a); Minn. R. 7011.7385; Minn. R. 7007.0800, subps. 2 and 14; Also meets CAM requirements per 40 CFR Section 64	Temperature: greater than or equal to 1574 degrees F using 3-hour Rolling Average at the combustion chamber outlet (Minimum Temperature Limit) as determined during the 10/04/2010 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. the new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the recorded 3-hour rolling average temperature is below the Minimum Temperature Limit, the VOC used during that time shall be considered uncontrolled until the average temperature is above the Minimum Temperature Limit. This shall be reported as a deviation.
8.0		CD	hdr	MONITORING AND RECORDKEEPING
9.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 63.3350(e)(9)(ii); 40 CFR Sections 60.443(e) and 60.445(e); Minn. R. 7011.7385; Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 4; Also meets CAM requirements per 40 CFR Section 64	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have an accuracy of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius, whichever is greater. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. The monitor shall be operated at all times when CE 009 is operating. This requirement is more stringent than, and therefore meets the requirements of, 40 CFR Section 63.3350(e)(9)(ii).
10.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14; 40 CFR Section 64.3(b); Minn. R. 7017.0200	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

11.0		CD	40 CFR Section 64.7(b); Minn. R. 7017.0200	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required.
12.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5; Also meets CAM requirements per 40 CFR Section 64	Temperature Recordkeeping: The Permittee shall record and maintain all CE 009 temperature records at the facility. The records shall be composed of a continuous hard copy readout (also includes data saved in electronic format) or manual readings taken at least every 15 minutes.
13.0		CD	40 CFR Section 64.3; Minn. R. 7017.0200	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration.
14.0		CD	40 CFR Section 64.3; Minn. R. 7017.0200	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.
15.0		CD	40 CFR Section 64.3; Minn. R. 7017.0200	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection.
16.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14;	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit: a. The overall control efficiency limit specified in this permit for this equipment (x%); or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test.
17.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Also meets CAM requirements per 40 CFR Section 64	Corrective Action: If the CE 009 combustion temperature falls below 1574 F (using 3-hour Rolling Average), during actual coating operations, unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, the Permittee shall take corrective action as soon as possible according to the control equipment manufacturer's specifications and the facility operation and maintenance plan. The Permittee shall keep a log of all corrective actions taken with records entered upon completion of each corrective action.
18.0		CD	40 CFR Section 64.7(e); Minn. R. 7017.0200	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing minimum combustion chamber temperature(s), the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring changes.
19.0		CD	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200	As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.
20.0		CD	40 CFR Section 64.9(b); Minn. R. 7017.0200	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.



COMPLIANCE PLAN **CD-01**

Facility Name: Ritrama Inc
Permit Number: 05300477 - 004

21.0		CD	Minn. R. 7007.0800, subp. 2	Operation, Breakdowns, and Emergency Maintenance: The Permittee shall vent the emission unit listed in the Associated items under CE 009, to CE 009 at all times except during CE 009 breakdown or emergency maintenance. Emergency maintenance is defined as maintenance that must be conducted as soon as possible to avoid imminent damage to process or control equipment. The Permittee shall keep a log of the start and stop times for all periods of CE 009 downtime that occur when the emission unit EU 007 is operating. The log shall also specify the cause of the CE 009 downtime.
22.0		CD	40 CFR Section 63.3350(e)(9)(i); Minn. R. 7011.7385; Also meets CAM requirements per 40 CFR Section 64	The Permittee shall install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. The Permittee must replace the equipment if you choose not to perform the calibration or if the equipment cannot be calibrated properly. The temperature monitoring equipment is considered a Continuous Parameter Monitoring System (CPMS).
23.0		CD	40 CFR Section 63.3350(e); Minn. R. 7011.7385; Also meets CAM requirements per 40 CFR Section 64	The Permittee must install, operate, and maintain each CPMS according to the requirements in 40 CFR Section 63.3350(e)(1) through (7).
24.0		CD	40 CFR Section 63.3350(e)(8); Minn. R. 7011.7385; Also meets CAM requirements per 40 CFR Section 64	Any averaging period for which the Permittee does not have valid monitoring data and such data are required constitutes a deviation and the Permittee must submit a notification in accordance with 40 CFR Section 63.3400(c).
25.0		CD	40 CFR Section 63.3350(f); Minn. R. 7011.7385; Also meets CAM requirements per 40 CFR Section 64	The Permittee must develop a site-specific monitoring plan containing the information specified in 40 CFR Section 63.3350(f)(1) and (2) for each capture system. In addition, the Permittee must: - conduct all capture system monitoring in accordance with the plan; - make the monitoring plan available for inspection by the permitting authority upon request; and - view and update the capture system monitoring plan at least annually. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.
26.0		CD	hdr	Case by Case Determination per Section 112(g)(2)(B) of the Clean Air Act
27.0		CD	40 CFR 60.443(e); 40 CFR Sections 63.40-63.44; Minn. R. 7011.2560; Minn. R. 7007.0800, subp. 5; Minn. R. 7007.3010; Also meets CAM requirements per 40 CFR Section 64	RTO Temperature Recordkeeping: The Permittee shall continuously record the RTO Combustion Chamber temperature during coating operations. The Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the Combustion Chamber is more than 50 degrees F below the average temperature of the Combustion Chamber during the most recent performance test complying with 40 CFR 60.442(a)(2). The Permittee shall record each such occurrence and its duration.
28.0		CD	hdr	PERFORMANCE TESTING
29.0		S/A	Title I Condition: To avoid major source classification under 40 CFR Sections 52.21 and 63.2; Minn. R 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 60 months starting 10/04/2010 to measure Total Hydrocarbons (Total VOC) Control Efficiency for CE 009. For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, Subject Item "Total Facility."
30.0		S/A	Title I Condition: To avoid major source classification under CFR Sections 52.21 and 63.2; Minn. R 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 60 months starting 10/04/2010 to measure Hazardous Air Pollutants - Volatile (HAPs - Volatile) Control Efficiency for CE 009. For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, Subject Item "Total Facility."

ATTACHMENT 4
COMPLIANCE ASSURANCE MONITORING PLAN
(Available Electronically in Delta Central File)

CAM Plan
Ritrama, Inc.
Facility ID No. 05300477
April 27, 2012

I. Background

A. Emission Unit

Description:	Coating Line C-7
Emission Unit ID No.:	EU 007
Control Equipment ID No.:	CE 009

B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit, 40 CFR 63.40-44, 40 CFR 60 Subp. RR, 40 CFR 63 Subp. JJJJ
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Emission Limits:

VOC:	95% overall VOC control efficiency (capture and control) as calculated over a calendar month.
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HAPs - Volatile:	98% overall HAPs - Volatile control efficiency (capture and control) as calculated over a calendar month.
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Monitoring Requirements:	Combustion Chamber Temperature (°F)
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Water Based Coatings:	Application of Water Based Coatings are not required to be controlled.
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C. Control Technology

Regenerative Thermal Oxidizer (RTO) with permanent total enclosures.

II. Monitoring Approach

Key elements of the monitoring approach are presented in the table below:

Indicator:	Combustion temperature is measured with thermocouples. Data collection systems currently consist of a strip chart recorder, as well as an electronic data system. Ritrama reserves the right to use either of the collection systems.
Indicator Range:	Combustion chamber temperature measurements shall be obtained and recorded at a minimum of 15 minute intervals. Combustion chamber temperature shall be maintained at greater than or equal to 1,574 °F, or a new minimum temperature based on the average temperature recorded during the most recent MPCA approved performance test where compliance with VOC and HAPs - Volatile emission limits is demonstrated.
Performance Criteria:	Thermocouples shall be located in the combustion chamber, at a location within the combustion zone.
	The monitoring device shall be calibrated or replaced every three months. The monitoring device shall have an accuracy of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or ± 2.5 °C.
Temperature Averaging Period	3-hour rolling average.
Control Equipment Bypass Monitoring	Application of water based coatings are not required to be controlled. Therefore, the RTO can be bypassed when running water based coatings.

III. Basis and Implementation

The proposed compliance assurance monitoring is based upon currently applicable standards, including 112g determination reflected in current permit, NSPS, and NESHAP.

Performance testing has been conducted pursuant to permit requirements.

Elements listed in the monitoring approach (less NESHAP requirements) are contemplated in current permit

IV. Rational for Selection of Indicator Range

Combustion chamber temperature will be based on the average temperature recorded during the most recent MPCA approved performance test where compliance with VOC and HAPs - Volatile emission limits is demonstrated.

ATTACHMENT 5
OCTOBER 4TH, 2010 NOC LETTERS
(Available Electronically in Delta Central File)



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-557-3851 | 651-282-5332 TTY | www.pca.state.mn.us

March 9, 2011

Mr. Nicholas Mattsson
Ritrama Inc.
800 Kasota Avenue
Minneapolis, MN 55414

Official File Stamp	
#05300477-004	
File Name	Ritrama Inc
File Number	NA 2393-JLK
Page #	NOC
Staff	
Category	

RE: Notice of Compliance for the Ritrama Inc. October 4, 2010, Performance Test on Coating Line No. 7 Regenerative Thermal Oxidizer (CE009) Pursuant to Air Emission Permit No. 05300477-004, MPCA Request Letter Dated May 25, 2010 and MPCA Test Plan Approval Dated September 21, 2010

Dear Mr. Mattsson:

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the final test report for the test conducted on the emission unit referenced above at the Ritrama Company located in Minneapolis, Minnesota. The test report was received electronically on October 22, 2010. This notice serves as the Commissioner's written verification of compliance status of the Company pursuant to Minn. R. 7017.2020 - 2025.

The MPCA staff has determined that the test results demonstrate the following under test conditions:

SUMMARY OF PERFORMANCE TEST RESULTS

Emission Unit Tested	Limitation Basis	Pollutant and Emission Limit	Test Result	Compliance Status
CE009/EU007 (Coating Line No. 7 Regenerative Thermal Oxidizer RTO)	Title 1 condition to avoid major modification status under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 14 g MACT Determination 112 g MACT Determination	Total Hydrocarbons (THC) Control Efficiency: ≥95%	THC Control Efficiency: 98.6%	Compliant
		Hazardous Air Pollutants - Volatile (HAPs-Volatile) Control Efficiency ≥98%	HAPs - HAP's Volatile Control Efficiency 98.9% Volatile Control Efficiency: 98.9% DRE	Compliant

The Total Hydrocarbons test was conducted while Coating Line No. 7 was processing adhesive material 1-2627 and topcoat material 1-2892. The Regenerative Thermal Oxidizer (RTO) control system for Line 7 was operating at 1,574 degrees Fahrenheit. These parameters are within the ranges defined in the approved test plan.

In addition, please be advised of the following:

March 9, 2011

1. The following production operating limit applies pursuant to Minn. R. 7017.2025, subp. 3. This limit may supersede specific previous operating limits in the permit as stated below. The limit applies in addition to any other operating limit or requirement that already exists and does not serve to relax any limit or requirement except where prior authorization has been given by the MPCA staff.

Emission Unit	Operating Limit	Averaging Method
Coating Line No. 7 RTO (CE009)	$\geq 1,574^{\circ}\text{ F.}$	Three-Hour Rolling Average: Down time of 15 or more minutes is not to be included as operating time.

The Company may not operate the Line No. 7 RTO at a lower temperature than that listed in the table above unless it conducts a performance test at a lower temperature and the MPCA staff determines compliance at that new temperature.

If an operating limit is exceeded, it must be reported in accordance with the deviation reporting requirements of Minn. R. 7007.0800, subp. 6(A).

2. The operating conditions met the worst-case operating condition as defined in the approved test plan. Therefore, no new operating limit is applicable pursuant to Minn. R. 7017.2025, subp. 3. However, please be aware that should operating practices change such that the current definition of worst-case becomes outdated, the MPCA may require a performance test at the new worst-case condition.
3. The Emission Inventory rule, Minn. R. 7019.3000 to 7019.3100, requires the calculation of emissions based on an established hierarchy. In the absence of Continuous Emission Monitor data meeting the requirements of Minn. R. 7019.3040, the next method of calculation, a performance test, must be used. When a performance test for particulate matter, carbon monoxide, nitrogen oxides, sulfur oxides, volatile organic compounds or lead is conducted and meets the requirements of Minn. R. 7017.2001 to 7017.2060, the results must be used to calculate emissions, unless specified otherwise by Minn. R. 7019.3000 to 7019.3100. It is the Company's responsibility to ensure the results of performance tests are accounted for in their annual emission inventory submittal. Note that the final decision to approve the emission factor for any given inventory year will be made by the Emission Inventory Coordinator.

If you have questions or comments regarding the content of this letter, please contact me at 651-757-2757.

Your continued cooperation is appreciated.

Sincerely,



Jim Kolar
Pollution Control Specialist Senior
Compliance and Enforcement Section
Industrial Division

JK:rrh

cc: Brent Rohne, MPCA
AQ Notice of Compliance/Noncompliance File No. 2393



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us

FILE COPY

May 25, 2010

Mr. Nicholas Mattsson
Ritrama Inc.
800 Kasota Avenue
Minneapolis, MN 55414

Official File Stamp	
Ritrama Inc	
File Name	2393
File Number	
Page #	Staff
Category 5/25/10 NON/NOE	

RE: **Amended Notice of Compliance** for November 19, 2002, Performance Test on Coating Line No. 7 Regenerative Thermal Oxidizer (RTO) Pursuant to Air Emission Permit No. 05300477-002 and MPCA Test Plan Approval Dated November 8, 2002.
Test Frequency Plan as Required by Air Emission Permit No. 05300477-002

Dear Mr. Nicholas Mattsson:

The Notice of Compliance dated January 15, 2003, has been amended to include the test frequency proposed in the test frequency plan letter dated October 27, 2003, in response to the October 21, 2003, Letter of Warning (LOW). Because a destruction efficiency test has not been conducted within five years of the most recent test (on November 19, 2002) as proposed in your October 23, 2003, response and formal Minnesota Pollution Control Agency (MPCA) approval of the test frequency plan has not been given, the following actions must be completed.

1. Submit a performance test plan for a destruction efficiency test on Line 7 Regenerative Thermal Oxidizer (RTO) (CE009) within 15 days of the date of this letter.
2. Conduct a destruction efficiency test on Line 7 RTO (CE009) within 90 days of the date of this letter.
3. Submit an updated test frequency plan for Line 7 RTO (CE009) based on the results of the most recent performance test within 60 days after completion of the performance test.

The MPCA staff has reviewed the final test report for the test conducted on the emission unit referenced above at the Ritrama facility located in Minneapolis, Minnesota. Ritrama submitted the final Performance test report to the MPCA staff on December 10, 2002, and requested that an expedited review be completed as allowed by MPCA form EXP-01. This request was approved by the MPCA on January 10, 2002.

The MPCA staff has determined that the test results demonstrate the following under test conditions:

May 25, 2010

SUMMARY OF PERFORMANCE TEST RESULTS

Emission Unit Tested	Limitation Basis	Pollutant and Emission Limit	Test Result	Compliance Status
Coating Line No. 7 RTO	Minn. Permit No. 05300477-002	Total Hydrocarbons (THC) 98% *DRE	Total Hydrocarbons (THC) 98.96% **DRE	Compliant

Notes: * DRE is defined as the percent Destruction Deficiency for RTO THC stack emissions: $\frac{30.25 \text{ lbs/hr.} - 0.314 \text{ lbs/hr.}}{30.25 \text{ lbs/hr.}} = 98.96\%$

** DRE is an average of three test runs.

30.25 lbs/hr.

The Performance test was conducted on the Line No. 7 RTO while combusting 100 percent natural gas and with Line No. 7 using top-coating which represents the lowest hydrocarbon RTO inlet loading and thus "worse case" for total hydrocarbon testing. These parameters are within the ranges defined in the approved test plan.

In addition, please be advised of the following:

1. **The following production operating limit applies pursuant to Minn. R. 7017.2025, subp. 3.** This limit applies in addition to any operating limit or requirement that already exists, and it does not serve to relax any limit or requirement except where prior authorization has been given by the MPCA staff. Note: If your facility has a Title V (part 70) permit, it will be re-opened (under Minn. R. 7007.1600, subp. 1.D.) in order to add these new operating limits. If your facility will be receiving a part 70 permit soon, these operating limits will be included in your permit.

Emission Unit	RTO Temperature (minimum limit)	Averaging Method
Coating Line No. 7 RTO (CE009)	1,573° F. (average of three test runs)	Three-Hour Rolling Average: Down time of 15 or more minutes is not to be included as operating temperature time.

Note: The Company may not operate the Line No. 7 RTO at a lower temperature than that listed in the table above unless it conducts a performance test at a lower temperature and the MPCA staff determine compliance at that new temperature for the emission unit.

2. The MPCA has approved the following preliminary schedule for the referenced unit:

Unit	Pollutant	Most Recent Test Date	Established Test Frequency	Expected Test Date
Coating Line 7 RTO (CE009)	Total Hydrocarbons (THC) 98% *DRE	November 19, 2002	Every 60 months from most recent test date	November 19, 2007

This schedule is effective on issuance of this letter and the established test frequency is indicated in the table above. The schedule will be re-evaluated upon receipt of the updated test frequency plan and the final test frequency will be incorporated in the above referenced permit at the next available opportunity (next amendment or re-issuance).

3. The operating conditions met the worst-case operating condition as defined in the approved test plan. Therefore, no new operating limit is applicable pursuant to Minn. R. 7017.2025, subp. 3. However, please be aware that should operating practices change such that the current definition of worst-case becomes outdated, the MPCA may require a performance test at the new worst-case condition.
4. The Emission Inventory rule, Minn. R. 7019.3000-7019.3100, requires the calculation of emissions based on an established hierarchy. In the absence of Continuous Emission Monitor data meeting the requirements of Minn. R. 7019.3040, the next method of calculation, a performance test, must be used. When a performance test for particulate matter, particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers, carbon monoxide, nitrogen oxides, sulfur oxides, volatile organic compounds or lead is conducted and meets the requirements of Minn. R. 7017.2001-7017.2060, the results must be used to calculate emissions, unless specified otherwise by Minn. R. 7019.3000-7019.3100. It is the Company's responsibility to ensure the results of performance tests are accounted for in their annual emission inventory submittal. Note that the final decision to approve the emission factor for any given inventory year will be made by the Emission Inventory Coordinator.

If you have questions or comments regarding the content of this letter, please contact me at 651-757-2359.

Your continued cooperation is appreciated.

Sincerely,



Shanda L. Fisher
Pollution Control Specialist
Compliance and Enforcement Section
Industrial Division

SLF:rrh

cc: Jeff Hedman, MPCA
Brent Rohne, MPCA
File