# M E M O R A N D U M

**DATE**: April 20, 2010

**TO**: Richard D. Garrity, Ph.D.

**FROM**: Lora Webb **THRU**: Diana M. Lee, P.E.
Sterlin K. Woodard, P.E.

**SUBJECT: Revised FESOP Permit Renewal – Vertis, Inc.**

Attached is a Final Revised Permit No. 0570254-022-AF for the operation of a lithographic printing facility that produces printed advertisements located at 4646 S. Grady Avenue, Tampa. This permit also incorporates Permit No. 0570254-021-AC, which authorized the construction of Press Line H. The operation consists of six printing press lines, seven dryers, and a natural gas fired Regenerative Thermal Oxidizer (RTO) afterburner (Langbein Englebracht America, Model No. TR3090C), which controls VOC emissions from the dryers.

Permit No. 0570254-022-AF was issued on April 9, 2009. Comments on the permit were received on April 23, 2009 and a Revised Permit was emailed to the facility on March 15, 2010. In addition, on March 29, 2010, comments on the Revised Permit were received from the facility and a Revised Permit was emailed to the facility on April 12, 2010. On April 15, 2010, the facility withdrew their petition for an administrative hearing.

Based on our review, we recommend that the above referenced permit be issued.

LAW: 0570254-022-AF

| PERMITTEE: | PERMIT/CERTIFICATION |
|---|---|
| Vertis, Inc. | Permit No: 0570254-022-AF |
| 4646 S. Grady Ave. | County: Hillsborough |
| Tampa, FL 33611 | Expiration Date: April 19, 2015 |
| | Project: Lithographic Printing Operation |

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-204, 62-210, 62-212, 62-296, 62-297, and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the EPC and made a part of hereof and specifically described as follows:

For the operation of a lithographic printing facility that produces printed advertisements. The operation consists of six printing press lines. The printing press lines are described as follows:

Line A: One 8-unit Harris N900, 46 inch heatset web offset printing press with two (2) MEG oven dryers. The press can print both sides of a continuous paper roll simultaneously, in multiple colors up to 1,800 fpm. The maximum heat input rate per dryer is 3.96 MMBTU/hr.

Line D: One 4-unit Harris N954, 54 inch heatset web offset printing press with a C-2400 dryer having a maximum heat input rate of 6.2 MMBTU/hr. The press can print both sides of a continuous paper roll simultaneously in multiple colors up to 1,800 fpm.

Line E: One 4-unit Harris N956, 56 inch heatset web offset printing press with a TEC dryer having a maximum heat input rate of 7.7 MMBTU/hr. The press can print both sides of a continuous paper roll simultaneously in multiple colors up to 2,000 fpm.

Line F: One 8-unit Heidelberg V-30, 36 inch web offset printing press consisting of a 4-unit heatset press and a 4-unit coldset press. This printing press has a TEC dryer having maximum heat input rate of 2.8 MMBTU/hr. Only the heatset press units are vented to the dryer. The press can print both sides of a continuous paper roll simultaneously in multiple colors up to 1,422 fpm.

Line G: One 4-unit Goss C700, 66 inch heatset web offset printing press with a MEGTEC dryer having a maximum heat input rate of 8.0 MMBtu/hr. The press can print both sides of a continuous paper roll simultaneously in multiple colors up to 3,000 fpm. An auto blanket wash system is installed on Line G.

Line H: One 4-unit Goss C700, 66 inch heatset web offset printing press with a Thermoelectron, Model

No. TO-93117-934617, dryer having a maximum heat input rate of 8.0 MMBTU/hr. The press can print both sides of a continuous paper roll simultaneously in multiple colors up to 3,000 fpm. An auto blanket wash system is installed on Line H.

The VOC emissions from the six press lines with a total of seven dryers and the auto blanket wash systems are controlled by a Langbein Englebracht America, Model No. TR3090C, Regenerative Thermal Oxidizer (RTO) afterburner at a minimum temperature of 1,400 $^{o}$F. The RTO is fired on natural gas at a maximum heat input rate of 5.0 MMBtu/hr. The RTO afterburner is required to comply with a destruction efficiency of 96 percent at a maximum VOC input rate of 469 pounds per hour, based on 8,760 hours, and a maximum inflow rate of 30,000 scfm. The coldset web units on Line F are not vented to the afterburner and run uncontrolled.

Because of the high boiling point and low vapor pressure of solvents in the heatset inks and based on EPA guidance and tests performed on similar units, volatile organic compound (VOC) emissions from the press lines when running the heatset inks are considered to be 100% captured in the respective oven dryers. Possible solvent retained in the substrate (printed material after passing through the oven/dryers) from the heatset web is not expected to release significant VOC levels because the printed paper quickly cools down as it leaves the oven/dryer.

The VOC exhaust from the sources (dryers) is pulled to the RTO in the entire length of the oxidizer system. The dryers are under negative pressure, which means the tee damper is located between the dryer and the dryer purge fan. The tee damper, being under constant negative pressure from the RTO system fan, will prevent any leakage to the atmosphere of the process gases. With the type of MEGTEC 2-blade negative pressure tee dampers being utilized in the system, it would be highly unlikely that a leak of fresh air into the system would occur. The damper blades have a metal-to-metal seal created by the solid angle steel blade seat and a slightly flexible damper blade. The flexible damper blade creates a very tight seal to prevent leakage from atmosphere into the solvent laden air from the process by compressing into the solid blade seat. Proximity switches check each blade for proof of open, proof of close, proof of non-open, and proof of not-closed. The redundancy is to prevent a stuck switch condition that could send a false damper position signal to the RTO controls.

The operation also emits VOC emissions from clean up solvents (blanket wash). Some of these VOC emissions dissipate uncontrolled indoors and have the potential to escape outdoors through building openings and vents.

Location: 4646 S. Grady Avenue, Tampa, Hillsborough County, FL

UTM: 17-350.3 E 3086.4 N NEDS NO: 0254

Emission Unit Nos.: 002 - Solvent (manual blanket wash usage)
006 – Heatset for Printing Press Lines A, D, E, F, G and H with RTO
007 – Coldset for Press Line F

References Permit No.: 0570254-021-AC

Replaces Permit No.: 0570254-020-AF

SPECIFIC CONDITIONS:

1. A part of this permit is the attached General Conditions. [Rule 62-4.160, F.A.C.]

2. All applicable rules of the Environmental Protection Commission of Hillsborough County including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction. [Rule 62-4.070(7), F.A.C.]

3. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C., or any other requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]

4. As requested by the permittee, in order to limit the potential to emit and establish the facility as a synthetic minor source for both criteria and hazardous air pollutants (HAPs), the following emission limitations shall apply for any 12 consecutive month period: [Rules 62-210.200, and 62-4.070(3), F.A.C. and Permit No. 0570254-021-AC]

A) The maximum VOC emissions from the facility-wide operations shall not exceed 87.6 tons.
B) The HAP, as defined in Rule 62-210.200, F.A.C., emissions shall be less than 10 tons for any individual HAP, and less than 25 tons for any combination of HAPs.

5. Visible emissions from the facility, including the exhaust from the oxidizer controlling the heatset presses, shall not be equal to or greater than 20% opacity. [Rule 62-296.320, F.A.C.]

6. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

7. In order to demonstrate compliance with the emission limitation in Specific Condition No. 4, the following restrictions and operating parameters shall apply: [Rule 62-4.070(3), F.A.C. and Permit No. 0570254-021-AC]

A) Maximum heatset ink usage: 8,000,000 pounds for any 12 consecutive month period.
B) Maximum coldset ink usage: 600,000 pounds for any 12 consecutive month period.
C) Minimum destruction efficiency of RTO afterburner: 96%.
D) Minimum RTO afterburner temperature: 1,400 $^{o}$F under normal operating conditions.
E) Maximum flow rate to RTO afterburner from all the six (6) Press Lines A, D, E, F, G, and H: 30,000 scfm.
F) The maximum VOC input rate to the RTO shall not exceed 469 pounds per hour.
G) All fumes from the ovens/dryers on the Press Lines A, D, E, F, G, and H shall be vented to the RTO afterburner when using heatset inks.
H) Maximum manual blanket wash usage: 9,000 gallons per any 12 consecutive month period.
I) Maximum combined auto blanket wash usage for Lines G and H: 5,000 gallons per any 12 consecutive month period.

SPECIFIC CONDITIONS:

J) Maximum fountain solution usage: 45,000 gallons per any 12 consecutive month period.
K) All spent rags used in the manual blanket wash operations shall be stored in a closed container.
L) Inks will be applied as received. Should any incidental thinning of ink be necessary, VOC and HAP emissions generated from such thinning shall be counted towards the limits in Specific Condition No. 4.
M) All compliance calculations shall be done in accordance with the procedures submitted in the construction permit application for Permit No. 0570254-021-AC.

8. Test the RTO afterburner for destruction efficiency (DE) within 180 days prior to expiration date of this permit. In addition, test each press for capture efficiency (CE) within 180 days prior to expiration of this permit. In lieu of conducting a capture efficiency test, the applicant may elect to perform EPA Method 204, which demonstrates 100% capture of all VOCs. Submit two copies of the test data to the Air Management Division within 45 days of such testing. Testing procedures shall be consistent with the requirements of 40 CFR 60 and Rule 62-297, F.A.C. [Rules 62-297.310(7)(a)4. and 62-297.310(8)(b), F.A.C.]

9. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of the maximum VOC input rate to the RTO of 469 pounds per hour. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen (15) days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to submit the input rates, operating temperature, and actual operating conditions may invalidate the test. [Rules 62-4.070(3) and 62-297.310(2)(b), F.A.C. and Permit No. 0570254-021-AC]

10. The capture efficiency test (CE) shall be conducted in accordance with EPA VOC Capture Efficiency Test Procedures, Rule 62-297.440(7), F.A.C. - EPA Method 204. The sampling time for each capture efficiency test run shall be as follows as approved by the Department pursuant to Rule 62-297.620, F.A.C.: [Rules 62-296.515 and 62-297.450(3), F.A.C., ASP No. 99-C-01, and Permit No. 0570254-021-AC]

A) Capture efficiency tests which use a total temporary enclosure or building enclosure with one of the liquid/gas or gas/gas methods identified in Rules 297.450(2)(a) through (d), F.A.C., shall consist of at least three sampling runs. Each run shall cover at least one complete production cycle, but shall be at least 3 hours long. The sampling time for each run need not exceed 8 hours, even if the production cycle has not been completed.

B) Capture efficiency tests which use the traditional liquid/gas method identified in Rule 297.450(2)(e), F.A.C., shall consist of the total number of runs needed to comply with either the data quality objective criteria or lower confidence limit criteria of Section 3.0 of

SPECIFIC CONDITIONS:

EPA Emission Measurement Technical Information Center Guideline Document GD-035, "Guidelines for Determining Capture Efficiency," January 9, 1995, adopted by reference at Rule 62-297.440, F.A.C. However, each traditional liquid/gas capture efficiency test shall consist of at least 3 sampling runs. The sampling time for each run shall be neither less than 20 minutes nor more than 24 hours.

11. During the compliance tests, the quantity of the ink consumed from the ink totes shall be recorded and the VOC content shall also be determined. This information shall be reported to verify the 100% capture efficiency assumption. The temperature in the RTO afterburner shall be reported as well. When testing the RTO afterburner, all Press Lines A, D, E, F, G and H must be operating with their ovens/dryers venting to the RTO afterburner. Failure to submit this information may invalidate the test. [Rule 62-4.070(3), F.A.C. and Permit No. 0570254-021-AC]

12. Compliance with the applicable requirements of Specific Condition No. 7C) shall be determined using EPA Methods 1, 2, 3, 4, and 25A for VOC emissions. The EPA Method 25A test shall be conducted on the inlet and outlet of the RTO afterburner to demonstrate the VOC destruction efficiency. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. [Rules 62-4.070(3) and 62-297.310(6), F.A.C. and Permit No. 0570254-021-AC]

13. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C.]

14. The permittee shall maintain and operate a continuous temperature measuring device to monitor and record the temperature in the combustion chamber of the RTO afterburner within 10 percent accuracy. [Rule 62-4.070(3), F.A.C. and Permit No. 0570254-021-AC]

15. Compliance with Specific Condition No. 7 shall be demonstrated through the use of a monthly recordkeeping system. The records shall be maintained onsite for three years and shall be made available to any local, state, or federal air pollution agency upon request. The records shall include, but not limited to, the following: [Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C. and Permit No. 0570254-021-AC]

A) Month, Year.
B) Set Type: Heatset or Coldset.
C) The amount of heatset inks used (in pounds), coldset inks used (in pounds), fountain solution used (in gallons), and auto/manual blanket wash used (in gallons).
D) VOC and HAP content as applied (percent by weight) for each type of ink.
E) Monthly and 12 consecutive month rolling total summary of C)
F) Monthly and 12 consecutive month rolling total summary of VOC emissions, and individual and total HAP emissions for all inks, fountain solution, and blanket wash.

SPECIFIC CONDITIONS:

16. The pollution control equipment (RTO afterburner) shall be maintained in good repair to perform adequately the function for which it was intended. Maintenance shall include, but is not limited to, bi-weekly inspections and replacement or repair of faulty equipment when necessary or as required by the manufacturer. In addition, the following requirements shall apply: [Rule 62-4.070(3), F.A.C. and Chapter 1-1.06, Rules of the EPCHC]

A) The attached Operation and Maintenance (O&M) Plan (Attachment A) for the RTO afterburner is an enforceable part of this permit. The permittee shall operate and maintain the control device according to the O&M Plan
B) Any maintenance or repair performed should be recorded. Records shall be maintained for the most recent three year period and made available for inspection upon request.

17. The permittee shall not store, handle, process, or use in any process, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems as follows and as deemed necessary and ordered by the Environmental Protection Commission of Hillsborough County: [Rule 62-296.320(1), F.A.C.]

A) Maintain tightly fitting cover, lids, etc. on all containers when they are not being handled, tapped, etc.
B) Where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, etc. of VOC so that it can be covered when not in use.
C) Immediately attend to all spills/waste as appropriate.

18. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. [Rule 62-296.320(4), F.A.C.]

19. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(1) and (4), F.A.C.]

20. Submit to the Environmental Protection Commission of Hillsborough County each calendar year on or before April 1, completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(3)(c)., F.A.C.]

21. The permittee shall provide timely notification to the Environmental Protection Commission of

SPECIFIC CONDITIONS:

Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200(205), F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

A) Alteration or replacement of any equipment or major component of such equipment listed on page 1 and 2 of this permit.
B) Installation or addition of any equipment which is a source of air pollution.

22. Prior to sixty days before the expiration of this operating permit, the permittee shall apply for a renewal of the permit using the current version of the permit renewal application form. A renewal application shall be timely and sufficient. If the application is submitted prior to sixty days before the expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operating permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the EPC or, if there is court review of the final agency action, until a later date is required by Section 120.60, Florida Statutes. [Rules 62-4.090, F.A.C.]

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

_____

Richard D. Garrity, Ph.D.
Executive Director

PERMITTEE:
Vertis, Inc.

PERMIT/CERTIFICATION NO.: 0570254-022-AF
PROJECT: Lithographic Printing Operation

SPECIFIC CONDITIONS:

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on _____ to the facility.

Clerk Stamp
FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated clerk, receipt of which is hereby acknowledged.

_____ _____
Clerk Date