ASP

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	
	)	
Schneller, Incorporated - Polyplastex Division	)	ASP No. 96-I-01
	)	
Petitioner.	)	

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), Schneller, Incorporated, petitioned for approval to use EPA Method 25A in lieu of EPA Method 25 for the measurement of volatile organic compound emissions from a vinyl coating line.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. On March 27, 1996, Petitioner requested approval to use EPA Method 25A in lieu of EPA Method 25 as the compliance verification procedure for the incinerator on its vinyl coating line. [Exhibit 1]

2. Petitioner submitted additional information concerning the request for approval of an alternate sampling procedure on October 16, 1996. [Exhibit 2]

3. As justification for the use of EPA Method 25A in lieu of EPA Method 25, Petitioner conducted a Smith-Satterthwaite statistical analysis of the test results and stated, "The results of the statistical analysis indicate that the test results for both test methods are statistically equivalent at a 0.01 level of significance. At a 95% level of confidence, Method 25A has a closer confidence interval than Method 25 does." [Exhibit 2]

4. The following table summarizes the results of the EPA Method 25 and Method 25A source tests for Petitioner's incinerator on January 19, 1996:

	Inlet VOC Concentration (ppm C)		Outlet VOC Concentration (ppm C)		Destruction Efficiency (%)	
Run #	Method 25	Method 25A	Method 25	Method 25A	Method 25	Method 25A
1	13,563	18,804	544	273	96	98.6
2	13,933	20,007	322	216	97.7	98.9
3	13,292	19,494	284	228	97.9	98.8
Average	13,596	19,435	383	239	97.2	98.8

5. Pursuant to 40 CFR 60, Subpart FFF, "Standards of Performance for Flexible Vinyl and Urethane Coating and Printing," new facilities of this type are required to use EPA Method 25A to measure volatile organic compound concentrations.

6. After reviewing the test results, the U. S. Environmental Protection Agency stated, "Because the destruction efficiency results do not seem to be affected significantly by the test method used, the Schneller proposal to conduct future incinerator testing with Method 25A only is acceptable to Region 4." [Exhibit 3]

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Pursuant to Rule 62-297.310(7), F.A.C., the Department may require Petitioner to conduct compliance tests that identify the nature and quantity of pollutant emissions, if, after investigation, it is believed that any applicable emission standard or condition of the applicable permit is being violated.

3. Petitioner has provided reasonable justification that the use of EPA Method 25A for the measurement of volatile organic compound emissions will be adequate to verify compliance with the applicable standard.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner shall use EPA Method 25A for the measurement of volatile organic compound concentrations at the inlet and outlet of the incinerator during compliance tests.

2. Petitioner shall use EPA Methods 1-4 to determine the flow rate at the outlet side the incinerator during compliance tests.

3. The Department retains the right to require Petitioner to use EPA Method 25 to determine the compliance status of the vinyl coating line, pursuant to Rule 62-297.310(7), F.A.C., if after investigation, it is believed that the use of EPA Method 25 is necessary to assess the compliance status of the affected facility.

4. Pursuant to Rule 62-297.310(8), F.A.C., Petitioner shall submit the compliance test report to the Air Quality Division Administrator of the Pinellas County Department of Environmental Management and to the District Director of the Department's Southwest District Office within 45 days of completion of the test.

DEP Permitting Note: (8/18/98)

Procedures for Petition for Administrative Review and Right to Appeal are not applicable to the Title V permit and are omitted (portion of page 3, pages 4,5, and portion of page 6 of the original Order).

DONE AND ORDERED this 20th day of December, 1996 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes

HOWARD L. RHODES, Director
Division of Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904) 488-0114

March 27, 1996

ENVIRONMENT
ENGINEERING
CONSULTANTS, I

Mr. Michael D. Harley, P.E., DEE
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED
APR 1 1996
Bureau of Air Monitoring
& Mobile Sources

Subject: Alternate Sampling Procedure Request
Schneller, Inc.-Polyplastex Division
Airs ID No. 1030118
Permit No. AO52-204178
Emission Unit No. 003 (Thermal Incinerator)

Dear Mr. Harley:

Pursuant to F.A.C. 62-297.620, we are hereby requesting approval for an alternate sampling procedure for the above referenced facility. The permit and F.A.C. 62-296.501 currently requires EPA Method 25 sampling for determining total gaseous non-methane organics (TGNMO) emissions. We are requesting permission to use EPA Method 25A for the determination of total gaseous organic emissions instead of EPA Method 25.

EPA Method 25A is requested due to questionable reliability of Method 25 and the more efficient and practical procedures of EPA Method 25A for the testing of this source. For example, CO_2 interferences during EPA Method 25 analysis, which have an unknown effect on the results, have routinely occurred for this emission unit. Also, the presence of organic compounds in the sample tank, which should have condensed in the dry ice trap may result in the under reporting of those compounds. During sampling, all EPA Method 25 procedures have been followed, including adequate dry ice within one inch of the neck of the trap.

The specific provisions from which an exception is sought are F.A.C. 62-296.501(4)(b)(1) and Permit No. AO52-204178 Specific Condition No. 8.

A compliance test report with simultaneous EPA Method 25/25A testing on this incinerator is attached. Based upon EPA EMTIC guidance documents and FDEP memos on this subject, we believe that this facility qualifies for approval to test using EPA Method 25A.

5119 NORTH FLORIDA AVE
P.O. BOX 7854
TAMPA, FLORIDA 33672
813/237-3781
800/229-3781

The destruction efficiencies determined from EPA Method 25 and 25A data were 97.2% and 98.8% respectively.

Schneller, Inc. will forward a letter of authorization to proceed with this request. If you have any questions, please call me.

Sincerely,

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

Byron T. Burrows, E.I.
Environmental Engineer II

cc: Gary Robbins, PCDEM
Jim Bittner, Schneller

October 16, 1996

ENVIRONMENTA
ENGINEERING
CONSULTANTS, IN

Mr. Michael D. Harley, P.E., DEE
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIV
OCT 21 1996
Bureau of Air Monitoring
& Mobile Sources

Subject: Alternate Sampling Procedure Request
Schneller, Inc. - Florida Division
ARMS ID No. 1030118
Permit No. A052-204178
Emission Unit No. 003

Dear Mr. Harley:

The purpose of this letter is to revise our original alternate sampling procedure request pursuant to conversations with you and Errin Pichard of your office. Specifically, you requested a comparison between the data collected using EPA Methods 25 and 25A simultaneously. Also, additional information was requested to support the validity of using EPA Method 25A for compliance testing the subject emission unit.

In review, a compliance tests was performed on the referenced source on January 19, 1996. The compliance test was performed according to EPA Method 25 and EPA Method 25A measurements were made concurrently. A comparison of the EPA Method 25 and 25A results and the corresponding permit limitation is presented in Attachment 1.

The destruction efficiency comparison indicated a close correlation of 1.6% relative percent difference. The outlet emission rate percent difference comparison is not indicative of the close correlation because with low values, emission rate differences insignificant in proportion to the standard result in high relative percent differences. Therefore, in order to test whether the difference between the two methods is significant, a statistical analysis was performed on the data. Since the variances of the two methods are unequal, the Smith-Satterthwaite Test was determined to be appropriate for the analysis. The results of the statistical analysis indicate that the test results for both test methods are statistically equivalent at a 0.01 level of significance. At a 95% level of confidence, Method 25A has a closer confidence interval than Method 25 does. The statistical analysis spreadsheet and supporting data are included in Attachment 2.

The attached EPA Method 25A emission rate calculations, using the VOC application rate and

EEC#95033.C01

Exhibit 2

5119 NORTH FLORIDA AVENUE
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TAMPA, FLORIDA 33673
813/237-3781

destruction efficiency to determine the VOC emission rate, more accurately indicate the actual emission rate for the process VOC. The calculations reflect the Procedure T certified 100% capture efficiency and assume that only a negligible amount of VOC is retained on the product. This method of calculation reduces the effect that the instrument response factor may have on the emission rate results. The revised calculations, based on the production rate and the destruction efficiency, correlate well with the previously submitted calculations. The calculations are included in Attachment 3.

In addition to the support of the statistical data for the use of Method 25A on these emission units, the applicability and principle section of Method 25 indicates that Method 25A is the more practical method to use in this case. The relevant issues are discussed below.

- In Section 1 of Method 25 it says that "cost, logistics and other practicalities of source testing may make other test methods more desirable for measuring the VOC contents of certain effluent streams." Method 25 testing costs thousands of dollars more than Method 25A testing and, according to the attached data, does not provide any more assurance of compliance than does Method 25A.

- Also, Method 25 testing is more dangerous to perform because of the need to have the heavy equipment and personnel remain on high platforms in hot and perilous immediate surroundings. Method 25A requires that only a probe and umbilical be placed in the stack and can be left unattended.

- In Section 1 of Method 25 it says that "direct measurement of an effluent with an FID analyzer may be appropriate with prior characterization of the gas stream and knowledge that the detector responds predictably to the organic compounds in the stream....The FID can be applied to the determination of the organic emissions under any of the following limited conditions:...(3) where the relative percentages of the compounds are known or can be determined and the FID responses to these compounds are known." The relative percentages of the influent compounds are known, the Method 25A emission rate is statistically equal to the Method 25 emission rate, and the FID responses to the compounds are known and are found to correlate with the Method 25 data. The attached discussion of the data verifies that these criteria are met.

We believe the information presented in this letter indicates that Method 25A is the most practical method to use to demonstrate compliance with the emission standards. Please process this alternate

Exhibit 2

sampling procedure request as soon as possible as compliance testing is due in January, 1997.

Please call me if you have any questions or need additional information.

Sincerely,

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

Byron T. Burrows, E.I.
Environmental Engineer II

cc: Jim Bittner, SI-FD
Eric Peterson, FDEP-SW
Gary Robbins, PCDEM

EEC#95033.001

Exhibit 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

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Bureau of Air Monitoring & Mobile Sources

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NOV 12 1996

Mr. Michael D. Harley, P.E., D.E.E.
P.E. Administrator
Emissions Monitoring Section
Bureau of Air Monitoring and Mobile Sources
Air Resources Management Division
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJECT: Alternative Sampling Procedure Proposed by Schneller, Inc. - Polyplastex Division, Pinellas Park, Florida

Dear Mr. Harley:

This letter is in response to your October 10, 1996, request for a determination regarding an alternate sampling procedure proposed for testing an incinerator used to control volatile organic compound (VOC) emissions from a vinyl coating line at the referenced facility. Schneller has conducted simultaneous testing on the incinerator using U.S. Environmental Protection Agency (EPA) Methods 25 and 25A and has requested that it be allowed to conduct future tests using Method 25A only. Based upon its review of test results included with your letter, Region 4 has concluded that the Schneller request is reasonable.

EPA has a policy that Method 25, rather than Method 25A be used for determining the destruction efficiency of incinerators unless the VOC concentration at the outlet of the incinerator is expected to be less than 50 parts per million (ppm). The basis for this policy is the concern that differences in the relative response of a Method 25A analyzer to VOCs at the inlet and outlet of an incinerator could lead to a high bias in destruction efficiency results. Because Method 25A has a lower detection limit than Method 25, the EPA policy on incinerator testing allows Method 25A to be used for destruction efficiency testing when outlet VOC concentrations are expected to be below 50 ppm.

Included with your October 10 letter was a summary of the results for the simultaneous Method 25 and Method 25A testing conducted at Schneller. This data indicates that the Method 25A result at the incinerator inlet (19435 ppm) was 43 percent higher than the corresponding Method 25 result (13596 ppm), and that the Method 25A result at the outlet (239) was 38 percent lower than the corresponding Method 25 result (383). This difference in results between the two test method is rather large, and the fact that the Method 25A results are higher than the Method 25 results

[Exhibit 3]

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at the inlet but lower than the Method 25 results at the outlet seems to support the theory that the Method 25A response factor can change significantly between the inlet and outlet of an incinerator. The overall difference in destruction efficiency results calculated using the results from the two test methods, however, is only 1.6 percent (97.1 percent for Method 25 versus 98.8 percent for Method 25A). Because the destruction efficiency results do not seem to be affected significantly by the test method used, the Schneller proposal to conduct future incinerator testing with Method 25A only is acceptable to Region 4.

If you have any questions about the determination provided in this memorandum, please contact Mr. David McNeal of my staff at 404/562-9102.

Sincerely yours,

R. Douglas Neeley
Chief
Air and Radiation Technology
Branch
Air, Pesticides and Toxics
Management Division

[Exhibit 3]

Appendix H-1: Permit History

Schneller, Inc. - Florida Division
Pinellas Park, Pinellas County

DRAFT Permit No.: 1030118-010-AV
Facility ID No.: 1030118

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Printing Operations	1030118-002-AV	07/06/99	07/06/04	Initial Title V
All	"	1030118-004-AC	04/19/98	12/31/99	Modif. (increase process rate)
All	"	1030118-006-AV	01/08/01	07/06/04	Admin Correction (New RO)
All	"	1030118-007-AC	07/10/01	07/10/02	Modif. (revise VOC limit)
All	"	1030118-008-AV	07/10/01	07/10/06	TV Revision (revise VOC limit)
All	"	1030118-009-AV	07/10/02	07/10/06	TV Revision (rev. test freq.)
All	"	1030118-010-AV	*Pending*	07/10/06	TV Revision (add MACT)

Note: Permit Application Projects 003-AC and 005-AV were withdrawn and never issued.