

Delena Gentry
2T Corporation
927 Rice Road
Centerville, IN 47330-9775

Re: Exempt Construction and Operation Status
177-12583-00099

Dear Ms. Gentry:

The application from 2T Corporation, received on August 5, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that your emission source, an acrylic fingernail primer production plant located at 927 Rice Road, Centerville, IN 47330-9775, is classified as exempt from air pollution permit requirements. This source consists of raw material storage, manual mixing, bottling, and product storage operations.

The following conditions shall be applicable:

1. Any change or modification which may increase the source's potential VOC emissions to 2.28 pounds per hour or more must be approved by the Office of Air Management (OAM) before such change may occur. The registration requirement in 326 IAC 2-5.5 applies at this level.
2. Any change or modification which may increase the source's potential combined hazardous air pollutant (HAP) emissions to 5.7 pounds per hour or more, or any individual HAP emission to 2.28 pounds per hour or more, must be approved by OAM before such change may occur. The maximum achievable control technology (MACT) requirement in 326 IAC 2-4.1-1 (New Source Toxics Control) applies at these levels.

This exemption is the first air approval issued to this source. An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

ARD

cc: File - Wayne County
Wayne County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	2T Corporation
Source Location:	927 Rice Road, Centerville, IN 47330-9775
County:	Wayne
SIC Code:	2899
Application No.:	177-12583-00099
Permit Reviewer:	Allen R. Davidson

On August 5, 2000, the Office of Air Management (OAM) received an application from 2T Corporation relating to the construction and operation an acrylic fingernail primer production plant. This emission source consists of raw material storage, manual mixing, bottling, and product storage operations.

History

This application is the first received for this emission source.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Stack Summary

There are no stacks associated with this emission source.

Recommendation

The staff recommends to the Commissioner that the revision be approved as an exemption. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 5, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations. (1 page)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The new source potential to emit is as follows:

Pollutant	Potential To Emit (tons/year)
PM	0
PM-10	0
SO ₂	0
VOC	1.0
CO	0
NO _x	0

HAP's	Potential To Emit (tons/year)
Ethyl Acrylate	0.25
TOTAL	0.25

The potential to emit (as defined in 326 IAC 2-7-1(29)) volatile organic compounds (VOC) is less than ten tons per year. Therefore, the application does not require review under 326 IAC 2-5.1 and can be classified as exempt under 326 IAC 2-1.1-3.

This source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. No attainment regulated pollutant has the potential to emit at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Actual Emissions

This is a new emission source. No previous emission data has been received from the source.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). The source does not have potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutant specified in the rule.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (General VOC Reduction Requirements)

The facilities are not subject to 326 IAC 8-1-6 (General Reduction Requirements) because the potential to emit volatile organic compounds is less than twenty-five (25) tons per year. Therefore, the BACT (best available control technology) requirements do not apply.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as hazardous air pollutants on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

This source will emit levels of hazardous air pollutants less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments. See attached calculations for detailed hazardous air pollutant calculations. (1 page)

Conclusion

The construction and operation of this source shall be subject to the conditions of the attached Exemption 177-12583-00099.

Appendix A: Emissions Calculations

Company Name: 2T Corporation
Address City IN Zip: Centerville, IN 47330
ID: 177-12583-00099
Reviewer: Allen R. Davidson
Date: 10/02/00

AP-42 Chapter 6.4 estimates evaporation loss from manufacture of acrylic varnish at 20 lb/ton

$$\frac{20 \text{ lb emitted}}{2000 \text{ lb product}} = 1.00\% \text{ emitted}$$

$$\frac{25 \text{ gal}^*}{\text{shift}} \times \frac{3 \text{ shift}}{\text{day}} \times \frac{7.5 \text{ lb VOC}}{\text{gal}} \times 1.00\% \text{ emitted} = 5.625 \text{ lb VOC/day}$$

$$\frac{5.625 \text{ lb}}{\text{day}} \times \frac{365 \text{ day}}{\text{yr}} \times \frac{\text{ton}}{2000 \text{ lb VOC}} = 1.03 \text{ ton VOC/year}$$

Approx. 25% of VOC is ethyl acrylate:

$$\frac{1.03 \text{ ton/year}^* \times 25\% \text{ HAP}^*}{8760 \text{ hr/year}} = 0.06 \text{ lb HAP/hr}$$

The following calculations determine emission thresholds applicable to higher levels of permitting:

$$25 \text{ ton/yr}^* \times \frac{2000 \text{ lb/ton}}{8760 \text{ hr/year}} = 5.71 \text{ lb/hr}$$

$$10 \text{ ton/yr}^* \times \frac{2000 \text{ lb/ton}}{8760 \text{ hr/year}} = 2.28 \text{ lb/hr}$$