Facility Name: **Nakanishi Manufacturing Corporation**
City: Winterville
County: Clarke
AIRS #: 04-13-059-00069 Application #: 17367

Date SIP Application Received: April 25, 2007
Date Title V Application Received: N/A
Permit No: 3562-059-0069-V-02-0

Program	Review Engineers	Review Managers
SSPP	Laura Warner	Eric Cornwell
SSCP	N/A	N/A
ISMP	N/A	N/A
TOXICS	N/A	[N/A

Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and operate and Section 502(b)(10) change to the Part 70 source. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1), 391-3-1-.03(2), and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the permit and is presented in the same general order as the permit amendment. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

I. Facility Description

A. Existing Permits

Table 1 below lists the current Title V permit, all administrative amendments and minor and significant modifications to that permit, and any 502(b)(10) changes. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
3562-059-0069-V-02-0	November 3, 2005	✓	
3562-059-0069-V-02-1	December 20, 2006	✓	

Table 2: Comments on Specific Permits

Permit Number	Comments
3562-059-0069-V-02-0	Title V Renewal Permit
3562-059-0069-V-02-1	502(b)(10) for construction and operation of a vacuum degreaser

B. Regulatory Status

1. PSD/NSR/RACT

The facility is non-major under PSD/NSR regulations.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	yes			✓
PM_{10}	yes			✓
SO_2	no			
VOC	yes			✓
NO_x	no			
CO	no			
TRS	no			
H_2S	no			
Individual	yes	✓		
Total HAPs	yes	✓		

II. Proposed Modification

A. Description of Modification

The Permittee will be constructing and operating a second vacuum degreaser, which will use a hydrocarbon-based solvent (ExxonMobil Isopar L Fluid) to remove metal stamping oil from taper cages. This change qualifies as a 502(b)(10) change because equipment is being added that does not affect any existing conditions in the Title V permit. This modification will require one of the existing trichloroethylene (TCE) degreasers (DG01, DG02) to be replaced in the process line by the new vacuum degreaser (VDG02). Vacuum degreaser VDG01 has already replaced one of these TCE degreasers, so once the second vacuum degreaser (VDG02) replaces the remaining TCE degreaser, then both TCE degreasers will have been replaced with vacuum degreasers. The TCE degreaser that is removed will be kept on-site and remain permitted since the vacuum degreaser is experimental and may not be permanent.

B. Emissions Change

Table 4: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	yes	0	0
PM_{10}	yes	0	0
SO_2	no		
VOC	yes	3.57*	10.17*
NO_x	no		
CO	no		
TRS	no		
H_2S	no		
Individual	yes	0*	0*
Total HAPs	yes	0*	0*

*Actual and potential emissions from the new vacuum degreaser.

Although the TCE degreaser being replaced by vacuum degreaser VDG02 will still be permitted, it will not be used once it is replaced by the vacuum degreaser in the process line; therefore, net potential VOC emissions will actually decrease by 19.33 tons per year (tpy) after the installation of the new vacuum degreaser. This is based on each TCE degreaser having potential TCE (both a VOC and a HAP) emissions of 29.5 tpy, and the new vacuum degreaser having potential VOC emissions of 10.17 tpy (29.5 tpy -10.17 tpy = 19.33 tpy). Net potential HAP emissions will decrease by 29.5 tpy since the Isopar L Fluid to be used in the vacuum degreaser contains no reportable HAP. Each TCE degreaser has actual TCE emissions of approximately 15.5 tpy, and the new vacuum degreaser will have actual VOC emissions of 3.57 tpy, so net actual VOC emissions will decrease by 11.93 tpy (15.5 tpy - 3.57 tpy = 11.93 tpy), and net actual HAP will decrease by 15.5 tpy.

C. Title I Modification

- PSD/NSR Applicability

  This modification will not trigger a PSD/NSR review because the 100 tpy VOC emission limit is remaining in effect.

- NSPS Modification

  The facility is not subject to any NSPS, and this modification will not trigger applicability for any NSPS.

- NESHAP Modification

  The facility is not subject to any Part 61 NESHAP, and this modification will not trigger applicability for any Part 61 NESHAP.

III. Facility Wide Requirements

A. Emission and Operating Caps

The existing facility wide emission limit of 100 tpy of VOC will apply to the new vacuum degreaser.

B. Applicable Rules and Regulations

- Rules and Regulations Assessment –

  None Applicable.

- Emission and Operating Standards –

  None Applicable.

C. Compliance Status

A review of the facility files indicates that no current compliance issues exist.

D. Operational Flexibility

None Requested.

E. Permit Conditions

None Applicable.

IV. Regulated Equipment Requirements

A. Brief Process Description

Vacuum Degreaser VDG02 will remove metal stamping oil from the taper cages using a hydrocarbon-based solvent, ExxonMobil Isopar L Fluid, heated to 110°C under a –550 mmHg vacuum. The Isopar L Fluid contains 100 wt% VOC and 0% reportable HAP (total HAP <0.02 wt%). The new vacuum degreaser is being installed as an alternative to the trichloroethylene (TCE) degreasers, and if the new vacuum degreaser meets production specifications then the facility may discontinue its use of trichloroethylene, which is a HAP that is reasonably anticipated to be a human carcinogen.

B. Equipment List for the New or Modified Process(es)

Emission Units		Specific Limitations/Requirements	Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**ID No.**	**Description**
VDG02	Vacuum Degreaser No. 2	N/A	N/A	N/A

C. Equipment & Rule Applicability

- Emission and Operating Caps –

  None Applicable.

- Applicable Rules and Regulations -

  Rules and Regulations Assessment:

  40 CFR Part 63, Subpart T, *National Emissions Standards for Halogenated Solvent Cleaning,* is not applicable because Isopar L Fluid, the solvent that will be used in the new vacuum degreaser, is not a halogenated solvent.

  Georgia Rule (ff), *Solvent Metal Cleaning*, is not applicable because the source is located outside of the Atlanta non-attainment area and VOC emissions are limited to 100 tpy.

  Emission and Operating Standards:

  None Applicable.

Toxic Impact Assessment:

A toxic impact assessment (TIA) was performed for the Vacuum Degreaser No. 1 stack (Stack ID No. VST01) for 502(b)(10) Permit No. 3562-059-0069-V-02-1, assuming the worst-case scenario where all allowable VOC emissions (100 tpy) were emitted from Stack VST01 as Isopar L emissions. The stack parameters for the Vacuum Degreaser No. 2 stack (Stack ID No. VST02) are identical to those of Stack VST01, so the TIA results for Stack No. VST02 will be the same as for Stack No. VST01, assuming the same worst-case scenario condition. Since potential emissions from Stack No. VST01 were found to comply with the Isopar L acceptable ambient concentration (AAC), then the potential emissions from Stack No. VST02 will be in compliance also. Please see the toxic impact assessment in the narrative for 502(b)(10) Permit No. 3562-059-0069-V-02-1 for more details on the toxic model.

D. Compliance Status

A review of the facility files indicates that no current compliance issues exist for any equipment.

E. Operational Flexibility

None Requested.

F. Permit Conditions

None Applicable.

V. Testing Requirements (with Associated Record Keeping and Reporting)

A. Individual Equipment:

None Applicable.

B. Equipment Groups (all subject to the same test requirements):

None Applicable.

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

A. Individual Equipment:

None Applicable.

B. Equipment Groups (all subject to the same monitoring requirements):

None Applicable.

VII. Other Record Keeping and Reporting Requirements

None Applicable.

VIII. Specific Requirements

A. Operational Flexibility

None Requested.

B. Alternative Requirements

None Applicable.

C. Insignificant Activities

None Applicable.

D. Temporary Sources

None Applicable.

E. Short-Term Activities

None Applicable.

F. Compliance Schedule/Progress Reports

None Applicable.

G. Emissions Trading

None Applicable.

H. Acid Rain Requirements

None Applicable.

I. Prevention of Accidental Releases

None Applicable.

J. Stratospheric Ozone Protection Requirements

None Applicable.

K. Pollution Prevention

None Applicable.

L. Specific Conditions

None Applicable.