

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF AIR

DIVISION of AIR POLLUTION CONTROL

PERMIT SECTION

Springfield, Illinois

PROJECT SUMMARY for the
DRAFT CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Knaack Manufacturing Company
Attn: Atul Saigal
420 East Terra Cotta Avenue
Crystal Lake, Illinois 60014

Illinois EPA ID Number: 111015ABO

Application Number: 95120162

Application Type: Significant Modification

Start of Public Comment Period: 08/03/2006

Close of Public Comment Period: 09/02/2006

Permit Engineer/Technical Contact: Sunil Suthar, 217/782-2113

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(This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

I. INTRODUCTION

This source has applied for a significant modification of the Clean Air Act Permit Program (CAAPP) operating permit. The CAAPP is the program established in Illinois for operating permits for significant stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of Illinois' Environmental Protection Act. The conditions in a CAAPP permit are enforceable by the Illinois Environmental Protection Agency (Illinois EPA), the USEPA, and the public. This document is for informational purposes only and does not shield the Permittee from enforcement actions or its responsibility to comply with applicable regulations. This document shall not constitute a defense to a violation of the Act or any rule or regulation.

A CAAPP permit contains conditions identifying the applicable state and federal air pollution control requirements that apply to a source. The permit also establishes emission limits, appropriate compliance procedures, and specific operational flexibility. The appropriate compliance procedures may include monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit. Further explanations of the specific provisions of the draft CAAPP permit are contained in the attachments to this document, which also identify the various emission units at the source.

II. GENERAL SOURCE DESCRIPTION

a. Nature of source

Knaack Manufacturing Company is located at 420 East Terra Cotta Avenue, Crystal Lake. This source is primarily engaged in the transforming uncoated steel into coated, weather proofed toolboxes utilized for storing tools, etc. From a storage/holding area uncoated steel is moved through one of three coil processing machines. After appropriate processing, the steel is spot or MIG welded together. The boxes then travel (via a conveyor) through the Knaack line paint/curing area or the weather guard area where parts are coated with electrostatic spray equipment and water-base coating or powder coated (if traveling through weather guard area). When parts arrive at Knaack assembly area they are touched-up with aerosol paint if needed. Final assembly, if necessary, is then performed before the product is cartoned and moved to finished goods inventory.

b. Ambient air quality status for the area

The source is located in an area that is currently designated nonattainment for the National Ambient Air Quality Standards for VOM and attainment or unclassifiable for all other criteria pollutants.

c. Major source status

The source requires a CAAPP permit as a major source of VOM emissions.

d. Source Emissions

The following table lists annual emissions of criteria pollutants from this source, as reported in the Annual Emission Reports sent to the Illinois EPA.

Pollutant	Annual Emissions (tons)	
	2005	2004
CO	5.27	4.86
NO _x	8.74	6.85
PM	2.96	2.62
SO ₂	0.03	0
VOM	31.92	22.17

III. NEW SOURCE REVIEW/TITLE I CONDITIONS

This draft permit contains terms and conditions that address the applicability of permit programs for new and modified sources under Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the draft permit by T1, T1R, or T1N. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this draft permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them. Where the source has requested that the Illinois EPA establish new conditions or revise such conditions in a Title I permit, those conditions are consistent with the information provided in the CAAPP application and will remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. COMPLIANCE INFORMATION

The source has certified compliance with all applicable rules and regulations; therefore, a compliance schedule is not required for this source. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

V. PROPOSED ILLINOIS EPA ACTION/REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested by the Illinois EPA for the draft or proposed permit, pursuant to 35 IAC Part 252 and Sections 39.5(8) and (9) of the Illinois Environmental Protection Act. A final decision on the draft or proposed permit will not be made until the public, affected states, and USEPA have had an opportunity to comment. The Illinois EPA is not required to accept recommendations that are not based on applicable requirements. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

ATTACHMENT 1: Summary of Source-Wide Requirements

The following table indicates the source-wide emissions control programs and planning requirements that are applicable to this source. These programs are addressed in Sections 5 and 6 of the draft permit.

Program/Plan	Applicable
Emissions Reduction Market System (ERMS)	
Nitrogen Oxides (NO _x) Trading Program	
Acid Rain Program	
Compliance Assurance Monitoring (CAM) Plan	
Fugitive Particulate Matter (PM) Operating Program	
Risk Management Plan (RMP)	
PM ₁₀ Contingency Measure Plan	

ATTACHMENT 2 : Summary of Requirements for Specific Emission Units

The following tables include information on the requirements that apply to significant emission units at this source. The requirements are found in Section 7 of the draft permit, which is further divided into subsection, i.e., Section 7.1, 7.2, etc., for the different categories of units at the source. A separate table is provided for each subsection in Section 7 of the draft permit. An explanation of acronyms and abbreviations is contained in Section 2 of the draft permit.

Table 1 (Section 7.1 of the draft permit)

Emission Unit	
Name	Coating Lines (Sections 7.1 and 7.2)
Description	Water based coating is electrostatically applied to metal parts in two booths. Overspray from each booth is channeled through fabric filters for each respective booth. After passing through the spray booths, parts proceed through Bake Oven #1.
Date Constructed	1986
Emission Control Equipment	Fabric Filters
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 212.321: The unit is a source of particulate emissions • 35 IAC 218.204(j)(2)(B): The unit is a source of VOM emission.
Streamlining	
Title I Conditions	<ul style="list-style-type: none"> • The draft permit contains limits on operation and emissions in Conditions 7.1.5, 7.1.6, 7.2.5 and 7.2.6: these limits were incorporated from Permit 86040010 for Section 7.1.5/7.1.6 and Permit 96020071 for Sections 7.2.5/7.2.6.
Non-applicability	<ul style="list-style-type: none"> • 40 CFR Part 64: the affected coating line does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels. • 35 IAC 218.301: pursuant to 35 IAC 218.209
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Standard Language
Emissions Monitoring	

Emission Unit	
Operational Monitoring	None
Inspections	None
Recordkeeping	VOM and HAPs contents of coatings, coating usage quantities, natural gas usage
Other	
Reporting	
Prompt Reporting	Standard language
Other Reporting	None
Other Information	
Footnotes	None

Table 2 (Section 7.3 of the draft permit)

Emission Unit	
Name	Waste Incinerator
Description	Waste incinerator used for on-site disposal of Type 1 waste and paint filters. The incinerator is of “multiple-chamber” design, with a primary combustion chamber (into which waste is charged) followed by a secondary combustion chamber.
Date Constructed	6/1987
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 216.141: The unit is source of CO emissions • 35 IAC 212.181(d): The unit is source of PM emissions
Streamlining	<ul style="list-style-type: none"> • N/A
Title I Conditions	<ul style="list-style-type: none"> • The draft permit contains limits on operation and emissions in Conditions 7.3.5 and 7.3.6. These limits were incorporated from Permit 86040010.
Non-applicability	<ul style="list-style-type: none"> • 40 CFR Part 64, Compliance Assurance Monitoring: The unit does not utilize add on control devices.
Periodic Monitoring (other than basic regulatory requirements)	
Testing	None
Emissions Monitoring	
Operational Monitoring	<p>Secondary combustion chamber temperature to ensure proper charging of waste</p> <p>Only Type 1 Waste and used paint filters shall be incinerated (this is not a permit for a medical waste incinerator and should not be used for this purpose)</p>
Inspections	The condition of the affected incinerator shall be inspected on a periodic basis for the presence of deficiencies
Recordkeeping	<p>secondary combustion chamber temperature during the time of operation.</p> <p>Hours of operation of affected incinerator</p>
Other	None
Reporting	

Emission Unit	
Prompt Reporting	Standard language
Other Reporting	None
Other Information	
Footnotes	None

Table 3 (Section 7.4 of the draft permit)

Emission Unit	
Name	Air Make-Up Units
Description	Five natural gas fired air make-up units used as sources of additional heating
Date Constructed	3 Units at 5.28 mmBtu/Hr – 1990 1 Unit at 7.5 mmBtu/Hr – 1978 1 Unit at 5.28 mmBtu/Hr - 1985
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	
Streamlining	
Title I Conditions	
Non-applicability	<ul style="list-style-type: none"> • 35 IAC 214.122: the unit does not burn either solid fuel or liquid fuel exclusively • 35 IAC 216.121: this rule applies to emission units whose heat input capacity is greater than 10 mmBtu/hr. • 35 IAC 217.122: the rule applies to emission units whose heat input capacity is greater than 250 mmBtu/hr. • 40 CFR Part 64: unit does not use an add-on control device to achieve compliance with an emission limitation or standard
Periodic Monitoring (other than basic regulatory requirements)	
Testing	None
Emissions Monitoring	
Operational Monitoring	None
Inspections	None
Recordkeeping	Total natural gas usage utilized in calculating emissions
Other	None
Reporting	

Emission Unit	
Prompt Reporting	None
Other Reporting	None
Other Information	
Footnotes	None

Table 4 (Section 7.5 of the draft permit)

Emission Unit	
Name	Welding Station
Description	Welding operation at the site to weld aluminum and steel sheet metal.
Date Constructed	1968
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 212.322(b)(1): the unit is source of particulate emissions
Streamlining	<ul style="list-style-type: none"> • None
Title I Conditions	<ul style="list-style-type: none"> • None
Non-applicability	<ul style="list-style-type: none"> • 40 CFR Part 64: does not use an add-on control device to achieve compliance with an emission limitation or standard.
Periodic Monitoring (other than basic regulatory requirements)	
Testing	None
Emissions Monitoring	
Operational Monitoring	None
Inspections	None
Recordkeeping	Total welding raw material usage utilized to calculate emissions.
Other	
Reporting	
Prompt Reporting	Standard Language
Other Reporting	None
Other Information	
Footnotes	None

Table 5 (Section 7.6 and 7.7 of the draft permit)

Emission Unit	
Name	Aerosol Touch-Up Operation Touch Up Coating Line for Knaack Coating Line and Weather Guard Coating Line
Description	New high volume low pressure (HVLP) spray guns will be used for touch-up coating of steel tool boxes on the coating lines. The coating is air dried.
Date Constructed	1986
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 218.204(j)(2): the unit is a source of VOM emissions • 35 IAC 212.321(a): the unit is a source of particulate emissions
Streamlining	<ul style="list-style-type: none"> • None
Title I Conditions	<ul style="list-style-type: none"> • The draft permit contains limits on operation and emissions in Conditions 7.7.5 and 7.7.6. These limits were incorporated from Permit 02010018.
Non-applicability	<ul style="list-style-type: none"> • 35 IAC 218, Subpart G: the coating lines are required to meet 35 IAC 218.204(c)
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing per 35 IAC 218.105 to establish the records required under 35 IAC 218.211.
Emissions Monitoring	None
Operational Monitoring	None
Inspections	None
Recordkeeping	None
Other	
Reporting	
Prompt Reporting	None
Other Reporting	None

Other Information	
Footnotes	None

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