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Facility Name: **Norcold Inc**

Application Number: **05-9501**

Date: **April 28, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations.

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Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

Facility Name: **Norcold Inc**Application Number: **05-9501**Date: **April 28, 1999**AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Norcold Inc** located in **Shelby** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	Source Identification Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P007 (Mod)	NA2 foaming operation	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	249.6 pounds/day and 45.4 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P008 (Mod)	Dual electric foaming process	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	311.8 pounds/day and 56.9 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P009 (Mod)	Door foaming process	Compliance with applicable rule/	3745-31-05	386.4 pounds/day and 70.56 TPY

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P009 (Mod) Cont'd		specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy		OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P010 (Mod)	System foaming process	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	153.6 pounds/day and 28 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P011 (Mod)	Cabinet foaming process	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	820.8 pounds/day and 149.8 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P011 (Mod) Cont'd				and Conditions
P012 (Mod)	R&D Foaming Process	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	192.9 pounds/day and 1.2 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P013 (Mod)	Test foaming operation	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	17.8 pounds/day and 0.1 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period.
			3745-21-07(G)	Refer to B.1. of the Additional Special Terms and Conditions
P014 (Mod)	T-12 foaming operation	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05	372.0 pounds/day and 67.89 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P014 (Mod) Cont'd			3745-21-07(G)	month period. Refer to B.1. of the Additional Special Terms and Conditions
P015	Small EG refrigerator foaming area	Compliance with applicable rule/ specified allowable emissions; use of non-photochemically reactive materials; Air Toxics Policy	3745-31-05 3745-21-07(G)	621.6 pounds/day and 113.4 TPY OC. The combined OC emissions from P007-P015 shall never exceed 168.3 tons/rolling 12 month period. Refer to B.1. of the Additional Special Terms and Conditions

SUMMARY
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
OC	168.3

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

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AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Applicable Emissions Limitations and/or Control Requirements

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: chlorodifluoromethane (R-22)

TLV (ug/m3): 3,540,000

Maximum Hourly Emission Rate (lbs/hr): 332.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11,380

MAGLC (ug/m3): 84,285.7

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists

- (ACGIH)," than the lowest TLV value specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
 - c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,
 - d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
2. The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
 - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
 - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

B. Operational Restrictions

1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

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Prior to employing any photochemically reactive materials, the permittee shall provide written notification to, and obtain approval from, the Ohio EPA, Southwest District Office. Such notification shall include information sufficient to determine that the emissions associated with the proposed change in materials will comply with the emission limits and/or control requirements as defined in OAC 3745-21-07(G) (2). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour.

2. The organic compound (OC) content of the polyurethane foam [specifically, the a-side (isocyanate portion) of the polyurethane foam system] employed in each emissions unit, P007-P015, shall not exceed 0.00012 percent by weight. The OC content is equivalent to the diphenylmethane diisocyanate (MDI) content.
3. The organic compound (OC) content of the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed in each emissions unit, P007-P015, shall not exceed 18.5 percent by weight. The OC content is equivalent to the chlorodifluoromethane (R-22) content.
4. The maximum annual polyurethane foam usage [b-side (resin portion) of polyurethane foam system] rate based on a rolling, 12 month summation of monthly coating usages shall not exceed 909.73 tons from P007-P015, combined.

To ensure federal-enforceability for the first twelve calendar months after the effective date of this PTI, the material usage from P007-P015, combined, shall not exceed the following:

<u>Month(s)</u>	<u>Total Allowable Material Throughput (tons)</u>
1	75.82
1-2	151.63
2-3	227.44
3-4	303.25
4-5	379.06
5-6	454.87
6-7	530.68
7-8	606.49
8-9	682.3
9-10	758.11
10-11	833.92
11-12	909.73

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual coating usage limitation shall be based upon a rolling, 12-month summation of the polyurethane foam usage [b-side (resin portion) of polyurethane foam system] figures.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for the purpose of determining the daily emissions from emissions units P007-P015 (to determine compliance with their individual lb/day emission limits):
 - a. the company identification for the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed;
 - b. the amount (lbs) of polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed;
 - c. the organic compound (OC) content of the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system], in percent by weight;
 - d. the total OC emission rate for the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system], in lbs/month;
 - e. the total number of days the emissions unit was in operation; and,
 - f. the average daily OC emission rate for the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system], i.e., (d)/(e), in lbs/day.
2. The permittee shall collect and record the following information for the purpose of determining the annual OC emissions from emissions units P007-P015 (to determine compliance with their individual TPY limits):
 - a. the company identification for the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed;
 - b. the amount (tons) of polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed;
 - c. the organic compound (OC) content of the polyurethane foam [specifically, the b-side (resin

- portion) of the polyurethane foam system], in percent by weight; and,
- d. the total OC emission rate for the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system], in tons/month.
3. The permittee shall maintain monthly records of the following information for emissions units P007-P015 combined:
 - a. the amount (tons) of polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed each month; and,
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling 12 month summation of the amount (tons) of polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall also record the cumulative amount (tons) of polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed each calendar month.

4. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
 - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
5. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average OC emissions from the polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] employed exceeded the daily emission limitation from any emissions unit, and the actual average OC emissions for each such day; and,
 - b. an identification of all exceedances of P007's-P015's combined rolling, 12-month organic compound emissions limitation.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative polyurethane foam [specifically, the b-side (resin portion) of the polyurethane foam system] coating usage levels.
3. The permittee shall also submit annual reports which specify the total and individually-assigned OC emissions from these emissions units for the previous calendar year. These reports shall be submitted by January 31 of each year.
4. The permittee shall submit required reports in the following manner:
 - a. reports of any required monitoring and/or recordkeeping information shall be submitted to Ohio EPA's Southwest District Office; and,
 - b. except otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA's Southwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a report which states that no deviations occurred during that quarter. The

reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude such deviations resulting from malfunction reported in accordance with OAC rule 3745-15-06).

E. Testing Requirements

1. Compliance with the following emission limitations shall be determined in accordance with the following methods:

a. Emission Limitation-P007

249.6 lbs/day, 45.55 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

b. Emission Limitation-P008

311.8 lbs/day, 56.9 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

c. Emission Limitation-P009

386.4 lbs/day, 70.52 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

d. Emission Limitation-P010

153.6 lbs/day, 28 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

e. Emission Limitation-P011

820.8 lbs/day, 149.8 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

f. Emission Limitation-P012

192.9 lbs/day, 1.2 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

g. Emission Limitation-P013

17.8 lbs/day, 0.11 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

h. Emission Limitation-P014

372.0 lbs/day, 67.89 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

i. Emission Limitation-P015

621.6 lbs/day, 113.4 TPY OC

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Terms and Conditions C.1. and C.2.

j. Emission Limitation-P007-P015, combined

168.3 tons OC/rolling 12-month period

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Term and Condition C.3.

k. Usage Limitation-P007-P015, combined

909.73 tons polyurethane foam [b-side (resin portion) of polyurethane foam system]/rolling 12-month period (and the monthly limits specified in Additional Special Term and Condition B.4. for the first 12 months of operation, upon PTI issuance)

Applicable Compliance Method

Compliance shall be based on the recordkeeping requirements as specified in Additional Special Term and Condition C.3.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content (in order to determine the percent volatile by weight) of the polyurethane foam (a-side and b-side of the polyurethane foam system).

- a. the facility must demonstrate that the OC emissions associated with the a-side of the polyurethane foam do not exceed 10 lbs/year. Compliance with this emissions limit shall be demonstrated by using the following equation:

4167 Tons side-a foam used/year x 2000 lbs/Ton x 0.0000012 lb OC/lb side-a foam used

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with methods approved by the Ohio EPA.