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Facility Name: **Invacare Corporation**

Application Number: **02-2200**

Date: **October 15, 1998**

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. Approval of the plans in any case is not to be construed as

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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.

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

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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.

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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>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Invacare Corporation** located in **Lorain** 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 <u>Number</u>	R002	Source Identification <u>Description</u>	Coating Booth #2 (Modifi-cation to increase OC allowable)
R001		Coating Booth #1 (Modifi-cation to increase OC allowable)	
	R002 cont'd		

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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>
		<p>non-photochemically reactive; com-pliance w/ Ohio EPA air toxics policy</p> <p>BAT <u>Determination</u></p> <p>OC: 8 lbs/hr + 40 lbs/dy from spray booth; all cleanup material to be non-photochemically reactive; com-pliance w/ Ohio EPA air toxics policy</p>		
		<p>OC: 8 lbs/hr + 40 lbs/dy from spray booth; all cleanup material to be</p>		

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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>
		3745-31-05		materials
			Permit Allowable Mass Emissions and/or Control/Usage Requirements	OC: 0.5 TPY for non-photochemically reactive cleanup materials.
	Applicable Federal & OAC Rules			Visible emission not to exceed 5% opacity
3745-31-05			OC: 8 lbs/hr, 40 lbs/dy and 7.3 tons/yr, excluding non-photochemically reactive cleanup materials	PM: 0.551 lb/hr
3745-21-07 (G) (2)		3745-17-11		Less stringent than 3745-31-05 limit.
		3745-17-07		
3745-31-05			OC: 0.5 TPY for non-photochemically reactive cleanup materials.	
			Visible emission not to exceed 5% opacity	
3745-17-11				PM: 0.551 lb/hr
3745-17-07				Less stringent than 3745-31-05 limit.
3745-31-05			OC: 8 lbs/hr, 40 lbs/dy and 7.3 tons/yr, excluding non-photochemically reactive cleanup	
3745-21-07 (G) (2)				

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SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
OC	15.6 (9.3 TPY increase)
PM	4.8

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.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

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In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

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.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Description

1. PTI application 02-12200 is for the modification of two existing spray booths (emissions units R001 and R002) in order to increase the allowable emission rate for organic compounds (OC).

B. Operational Restrictions

1. Cleanup material shall not be a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

C. RecordKeeping Requirements

1. The permittee shall collect and record the following information each day for each spray booth (R001 and

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R002):

- a. the company identification for each coating and photochemically reactive cleanup material employed;
- b. the number of gallons of each coating and photochemically reactive cleanup material employed;
- c. the organic compound content of each coating and photochemically reactive cleanup material, in pounds per gallon;
- d. the total organic compound emission rate for all coatings and photochemically reactive cleanup materials, in pounds per day;
- e. the total number of hours the emissions unit was in operation; and,
- f. the average hourly organic compound emission rate for all coatings and photochemically reactive cleanup materials, i.e., (d)/(e), in pounds per hour (average).

[Note: The coating information must be for the coatings, including any as employed thinning solvents added at the emissions unit. Also, the definitions of photochemically reactive and nonphotochemically reactive are based upon OAC rule 3745-21-01(C)(5).]

2. The permittee shall collect and record the following information for the purpose of determining annual organic compound emissions:
 - a. the company identification for each nonphoto-chemically reactive cleanup material employed;
 - b. the number of gallons of each nonphotochemically reactive cleanup material employed;

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- c. the organic compound content of each nonphoto-chemically reactive cleanup material, in pounds per gallon; and,
- d. the total organic compound emission rate for all nonphotochemically reactive cleanup materials, in pounds.

D. Reporting Requirements

1. For each emissions unit (R001 and R002), the permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly organic compound emissions from the coatings and photochemically reactive cleanup materials exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day;
 - b. an identification of each day during which the organic compound emissions from the coatings and photochemically reactive cleanup materials exceeded 40 pounds per day, and the actual organic compound emissions for each such day; and,
 - c. these reports shall be submitted to the Ohio EPA Northeast District Office within 45 days after the exceedance occurs and shall include the probable cause of such deviations as well as any corrective actions or preventive measures taken. If no exceedances occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter.
2. The permittee shall also submit annual reports which specify the total organic compound emissions from these emissions units for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Compliance Method Determination

Compliance with the emission limitations in this permit

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shall be determined in accordance with the following methods:

1. Emission Limit: 8 lbs/hr, 40 lbs/day and 7.3 tons/yr of organic compound from spray booth operation

Applicable compliance method: Compliance with the above limitations shall be demonstrated by the recordkeeping requirements from section III.1 of these terms and conditions.

2. Emission Limit: 0.5 ton/yr of organic compound from cleanup operations

Applicable compliance method: Compliance with the above limitation shall be demonstrated by the recordkeeping requirements from section III.2. of these terms and conditions.

3. Emission Limit: 0.551 pound per hour of particulate matter

Applicable compliance method: To determine the actual worst case emission rate for particulate matter, the following equation shall be used:

$$E = \text{maximum coating solids usage rate (in pounds per hour)} \times (1-TE) \times (1-CE)$$

E = particulate matter emissions rate (lbs/hr)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = control efficiency of the control equipment

4. Emission Limit: Visible emissions not to exceed 5% opacity

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Applicable compliance method: Compliance with the above limitation shall be demonstrated by U.S. EPA reference method 9.

5. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the coatings and cleanup solvents.

F. Miscellaneous Requirements

1. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for PTI number 02-12200. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the OC emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the SCREEN3 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each pollutant:

Pollutant: acetone

TLV (ug/m3): 1,780,000

Maximum Hourly Emission Rate (lbs/hr): 6.76

Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1346

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 42,300

Pollutant: toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.98

Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 978

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4476

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Pollutant: MEK

TLV (ug/m3): 590,000

Maximum Hourly Emission Rate (lbs/hr): 2.4

Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 474

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 14,047

2. Any of the following changes may be deemed a "modification" to the emissions units and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required, including the possible issuance of modifications to PTI number 02-12200 and the operating permit:
 - a. any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup 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. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table; and,
 - c. any change to the emissions unit or its method of operation that would either 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.