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Facility Name: **Columbus Steel Drum**

Application Number: **01-6852**

Date: **February 18, 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: **Columbus Steel Drum**Application Number: **01-6852**Date: **February 18, 1999**AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Columbus Steel Drum** located in **Franklin** 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
N002	Drum recondi- tioning process (including material handling and furnace) (modification)	Compliance with Allowable Emission Limits and Control Requirements; Compliance with Air Toxics Policy; Use of afterburner and permanent total enclosure to control drum handling and drum furnace emissions.	3745-31-05 3745-17-09 3745-17-07 3745-21-08 3745-21-07 (G)(1) 3745-18-06 3745-23-06	0.10 pound PM/100 pounds of salvageable material charged 4.9 pounds PM/hour 4.4 pounds as PM <sub>10</sub> /hour (10.57 TPY PM(PM <sub>10</sub> )) Metals Limit: 0.0042 pound As/hour (0.0091 TPY As) 0.0005 pound Be/hour (0.0011 TPY Be) 0.010 pound Cd/hour (0.022 Cd TPY) 0.004 pound Cr/hour (0.0076 Cr TPY) 0.052 pound Pb/hour (0.11 Pb TPY) 0.005 pound Hg/hour (0.011 TPY Hg) 0.0076 pound Ni/hour (0.02 TPY Ni)

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
N002 Cont'd				9.0 pounds OC/hour 5 percent opacity as six minute average, 50 ppmv CO on an hourly average basis; 2.97 pounds CO/hour; (8.25 TPY CO) 3.9 pounds SO <sub>2</sub> /hour; (16.9 TPY SO <sub>2</sub> ) 10.5 pounds NO <sub>x</sub> /hour; (29.2 TPY NO <sub>x</sub> ) 95 percent OC overall control efficiency, 95 percent afterburner destruction efficiency, 83 hours of production feed per week, See Additional Special Terms and Conditions for control requirements

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM(PM <sub>10</sub> )	10.57 (9.5)
As	0.0091

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Be	0.0011
Cd	0.022
Cr	0.0076
Pb	0.11
Hg	0.011
Ni	0.02
CO	8.25
SO <sub>2</sub>	16.9
VOC	19.4
NO <sub>x</sub>	29.2

### CONSTRUCTION STATUS

The **Ohio EPA, Central District Office** shall be notified in writing as to (a) the construction starting date, (b) the construction completion date, and (c) the date the facilities were placed into operation for the following sources: **drum reconditioning process (including material handling and furnace).**

### RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

### REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417.**

### 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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#### **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**

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, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417.**

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. Permanent Total Enclosure**

1. Best Available Technology (BAT) for this PTI includes the use of a total enclosure for capturing the OC emissions from the drum handling building and drum reclamation furnace, for source N002, with venting of the captured emissions from drum handling building and drum reclamation furnace to add-on Organic Compound (OC) emission controls which maintain a minimum Destruction and Removal (DRE) efficiency of 95 percent by weight.

The add-on emission control equipment shall consist of an afterburner.

2. Prior to startup of source N002, this facility shall submit a monitoring plan for the OC capture system to the Ohio EPA, Central District Office for approval. The plan shall include the following information, as a minimum:
  - a. the parameter(s) to be continuously measured and recorded for verifying the OC emissions capture efficiency rate;
  - b. the manufacturer(s) of the monitoring device and recording instrumentation;
  - c. a Quality Assurance/Quality Control (QA/QC) plan to ensure the monitor is maintained and operated in accordance with manufacturer(s) specifications. Prior to submittal to Ohio EPA, this plan shall be submitted to the manufacturer's of the monitoring system for review and comment. A copy of the manufacturer's comments regarding the QA/QC plan shall be submitted to the Ohio EPA with the plan.

The facility shall install, maintain and operate a monitoring system that continuously measures and records the value of the parameter(s) chosen to verify the OC capture rate during operation of source N002.

The total enclosure shall meet the design requirements set forth in USEPA guidance document EPA/4-91-010, Method 204 unless otherwise approved in writing by Ohio EPA and USEPA as indicated in the guidance document; and,

- d. this facility shall operate the monitoring and recording system anytime material handling is taking place or the drum reconditioning furnace is being operated for production purposes or completion of the burn down cycle.

**B. Afterburner Operating Temperature Limitations**

1. The after burner shall provide at least 0.5 second of retention and a combustion chamber exhaust gas temperature of not less than 1800 degrees Fahrenheit.

**C. Design and Operating Restriction**

1. The Drum reclamation furnace, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
2. The stack or stacks shall be designed to minimize the impact of the emissions on employees, visitors, or nearby residents. The design of this unit shall meet good engineering practices so as not to cause excessive exhaust gas concentrations of any air contaminant.
3. A device to control the feed of drums shall be installed which will prevent the feed of drums until the afterburner exhaust gas temperature has reached 1800 degrees Fahrenheit.
4. Burners within the Drum reclamation furnace and afterburner are permitted to operate during non production periods in order to prevent excessive heating and cooling of refractory. During these non production periods, the afterburner shall be maintained at a minimum temperature of 1800 degrees Fahrenheit until all wastes are completely combusted and the burn-down cycle is complete.
5. For the purpose of this permit burn down cycle is defined as the operating time in which the drum reclamation furnace is operable, however, material handling and the feeding of drums has ceased and the furnace is being operated to ensure complete combustion of all residual waste.

**D. Monitoring, Recordkeeping and Reporting**

1. Thermocouple

- a. A thermocouple shall be installed in the exit gas stream of the afterburner. The accuracy of this thermocouple shall be at least 1 percent of the temperature being monitored in degrees Celsius or plus or minus 2.5 degrees Celsius whichever is greater.

This facility shall install, maintain and operate instrumentation sufficient to continuously monitor and record the after burner exhaust gas temperature at all times while waste combustion is occurring in the Drum Furnace.

This data shall be maintained on file at the facility for a period of at least three (3) years. Such data shall be made available for inspection by the Director upon request.

The thermocouple and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

- b. At a minimum, at least one spare thermocouple and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- c. A quarterly operation temperature report is to be submitted by this facility to the Ohio EPA. The operating temperature report shall contain at a minimum the following for any temperature variations below minimum operating temperature requirements. The date, time of occurrence, cause for occurrence, corrective action taken and corrective actions taken to prevent further excursions of the operating temperature.

This report shall be submitted by February 1, May 1, August 1, and November 1 of each year and shall address the data obtained during previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).

2. Carbon Monoxide (CO)

- a. This facility shall operate and maintain equipment to continuously measure and record the average hourly carbon monoxide, by volume, emissions from this source in parts per million of carbon monoxide.

The CEM shall meet the performance specifications for continuous emission monitoring system specified in 40 CFR, Part 60, Appendix B, Performance Specification Test 4 with the exception of section 2.3 (Relative Accuracy Test Audit) due to extremely low CO emission rates measured during the initial performance test conducted on November 20, 1996.

- b. All CEM data collected shall be retained in the facility's file for a period of not less than three (3) years and shall be made available to the Director or any authorized representative of the Director upon request.

Anytime work is done on the CO analyzer it should be documented in a log book dedicated to the monitoring system.

The data obtained from the CEMS will be used to determine compliance with the applicable emission limitations.

- c. This facility shall submit quarterly emission reports to the Ohio EPA, Central District Office by February 1, May 1, August 1 and November 1 of each year and cover the previous calendar quarter. These reports shall include all readings above the applicable emission limitations. The report must include the date, time(s), magnitude, reason (if known) and corrective action taken (if any) for each exceedance. Any CEM down time while the source was on-line must be documented and included in the report along with any corrective action(s) taken.

### 3. Operating Record

- a. This facility shall maintain a log book for this source which will be used to record the date, time of start-up, time of shutdown and recording persons signature.

Startup is defined as the time in which material handling or drum furnace production has begun. Shutdown is defined as the time at which the burn down cycle is complete.

A report shall be submitted by February 1, May 1, August 1 and November 1 of each year and shall summarize the total number of hours of operation during each week for the previous calendar quarter.

### E. Preventive Maintenance and Malfunction Abatement Plan for Drum Reconditioning Process Including Material Handling Furnace and Afterburner

1. Columbus Steel Drum shall implement a Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) for

the drum reconditioning process. At a minimum this plan needs to include monthly inspections using the PM and MAP procedures recommended by the equipment manufacturer. The inspection shall include a written report containing any needed repairs to the unit. If the drum process is in need of repairs it shall not be operated if operation will result in exceedance of any emission limits or noncompliance with any term and condition detailed in this permit. Repairs shall be completed within 30 days of the inspection. If a time period longer than 30 days is needed to complete the repairs, the Central District Office shall be notified in writing. This notice shall list the repairs needed and the reason(s) the repairs could not be accomplished sooner. All inspection and repair reports shall be kept by the source owner for a period of three (3) years and made available to the Ohio EPA upon request.

The written PM & MAP plan shall be submitted to the manufacturer for comments. These written comments and the PM & MAP plan shall be submitted to the Central District Office. Prior to start-up of source N002, Columbus Steel Drum shall obtain written approval of the PM & MAP from Ohio EPA.

**F. Limitations on Contents of Drums**

1. Ohio EPA Source N002 shall not process any drum that does not meet the RCRA definition of empty as specified in 3745-51-07.
2. Prior to operation of this source Columbus Steel Drum shall submit and obtain written approval from Ohio EPA for a drum inspection procedure. The inspection procedure shall include the following:
  - a. description of inspection method used to ensure drums not meeting the RCRA definition of empty are not processed; and,
  - b. description of the training inspectors or operators will be given to allow them to identify non RCRA empty drums.

**G. Air Toxics Policy**

1. Pursuant to Engineering Guide #69, modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be

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less than 1.0 ton. 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 OAC rule 3745-31-01. The permittee is hereby advised that 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 to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.