



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
AUGLAIZE COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

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Lazarus Gov. Center  
P.O. Box 1049

**Application No: 03-13403**

**DATE: 2/12/2002**

Amcast Automotive- Wapakoneta  
David Marchus  
13663 Short Road  
Wapakoneta, OH 45895

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

NWDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 2/12/2002  
Effective Date: 2/12/2002**

**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 03-13403**

Application Number: 03-13403  
APS Premise Number: 0306020051  
Permit Fee: **\$200**  
Name of Facility: Amcast Automotive- Wapakoneta  
Person to Contact: David Marchus  
Address: 13663 Short Road  
Wapakoneta, OH 45895

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**13663 Short Road  
Wapakoneta, Ohio**

Description of proposed emissions unit(s):  
**This is an administrative modification for emission unit P003. This modification raises the HF and Cl emission limits to resolve the NOV issued as a result of stack testing.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

  
Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as 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 appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

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 for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

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representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

**9. Construction of New Sources(s)**

The proposed emissions unit(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

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Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(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 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 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 the requirements of this permit or cannot meet applicable standards.

**10. 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.

**11. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**12. 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.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

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modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

#### **14. 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.

#### **15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

### **B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

#### **SUMMARY (for informational purposes only)** **TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
NO <sub>x</sub>	5.17
CO	11.65
PM	8.37
HF	0.013
Cl	0.75

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
4452 lb/hr primary aluminum melt reverberatory furnace (administrative modification of PTI # 03-13403 issued on 4/19/00) modification to increase HF and Cl emission limitations.	OAC rule 3745-31-05(A)	Use of low NO <sub>x</sub> burners  1.18 lbs nitrogen oxide (NO <sub>x</sub> )/hour, 5.17 tons NO <sub>x</sub> /year  1.91 lbs particulate emissions (PE)/hour, 8.37 tons PE/year  20% opacity as a six-minute average  2.66 lbs carbon monoxide (CO)/hour, 11.65 tons CO/year  0.07 lb hydrogen fluoride (HF)/day, 0.013 ton HF/yr  4.1 lb chloride (Cl)/day, 0.75 ton Cl/yr
	OAC rule 3745-17-11(B)(2)	None, see A.I.2.a
	OAC rule 3745-17-07(A)	None, see A.I.2.b

**2. Additional Terms and Conditions**

- 2.a The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply.

- 2.b** This emissions unit is exempt from the visible PE limitations specified on OAC rule 3745-17-07 (A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

**B. Operational Restrictions**

1. The permittee shall only process "clean" raw materials in this emissions unit (i.e. free of oils, greases, solvents, etc.).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records of the name and identification of each flux employed.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

**D. Reporting Requirements**

1. The permittee shall submit semiannual written reports which:
  - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
  - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or

local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **E. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the following allowable mass emission rates:
    - i. 0.07 lb HF/day; and
    - ii. 4.1 lb Cl/day

Compliance with the allowable mass emissions rates for HF and Cl shall be demonstrated by confirming company supplied emission factors of 0.004 oz. HF/lb flux and 0.015 oz. Cl/lb flux; see E.2.h. and E.2.j.

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for HF, Method 13 of 40 CFR Part 60, Appendix A; and for Cl, Method 26 of 40 CFR Part 60, Appendix A. Alternate U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be

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permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation  
1.18 lbs NO<sub>x</sub>/hr

Applicable Compliance Method

The lb/hr limitation was developed in accordance with a manufacturer supplied emission factor of 0.098 lb NO<sub>x</sub>/mmBtu multiplied by the maximum firing capacity of 12 mmBtu/hr. If required, compliance with the lb/hr limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7.

- b. Emission Limitation  
5.17 tons NO<sub>x</sub>/yr

Applicable Compliance Method

The ton/yr limitation was developed by multiplying the lb/hr limitation by a maximum operating schedule of 8760 hr/year, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation  
2.66 lbs CO/hr

Applicable Compliance Method

The lb/hr limitation was developed in accordance with a manufacturer supplied emission factor of 0.222 lb CO/mmBtu multiplied by the maximum firing capacity of 12 mmBtu/hr. If required, compliance with the lb/hr limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10 or 10B.

- d. Emission Limitation  
11.65 tons CO/yr

Applicable Compliance Method

The ton/yr limitation was developed by multiplying the lb/hr limitation by a maximum operating schedule of 8760 hr/year, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation  
1.91 lb PE/hr

**Applicable Compliance Method**

The lb/hr limitation was developed in accordance with a manufacturer supplied emission factor of 0.86 lb PE/ton multiplied by the maximum furnace capacity of ~~5500~~ 4452 lb/hr and dividing by 2000 lb/ton. If required, compliance with the lb/hr limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.

- f. Emission Limitation  
8.37 tons PE/yr

**Applicable Compliance Method**

The ton/yr limitation was developed by multiplying the lb/hr limitation by a maximum operating schedule of 8760 hr/year, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation  
20% opacity as a six-minute average

**Applicable Compliance Method**

Compliance with the opacity restriction shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- h. Emission Limitation  
0.07 lb HF/day

**Applicable Compliance Method**

The lb/day limitation represents the potential to emit for this emissions unit based on the following emission factors derived from stack testing: 0.004 oz. HF per lb of flux and a maximum flux usage rate of 70 lb per day, and 0.0009 lb HF per ton of melted aluminum and a maximum aluminum melting rate of 53.42 tons/day. Compliance shall be demonstrated through the testing requirements in section E.1.

- i. Emission Limitation  
0.013 ton HF/yr

**Applicable Compliance Method**

The tons/yr emission limitation was developed by multiplying the lb/day limitation by a maximum operating schedule of 365 days/yr and dividing by 2000 lb/ton. Therefore, provided compliance is shown with the daily limitation, compliance will also be shown with the annual limitation.

- j. Emission Limitation  
4.1 lb Cl/day

**Applicable Compliance Method**

The lb/day limitation represents the potential to emit for this emissions unit based on the following emission factors derived from stack testing: 0.015 oz. Cl per lb of flux and a maximum flux usage rate of 70 lb per day, and 0.07 lb Cl per ton of melted aluminum and a maximum aluminum melting rate of 53.42 tons/day. Compliance shall be demonstrated through the testing requirements in section E.1.

- k. Emission Limitation  
0.75 ton Cl/yr

**Applicable Compliance Method**

The tons/yr emission limitation was developed by multiplying the lb/day limitation by a maximum operating schedule of 365 days/yr and dividing by 2000 lb/ton. Therefore, provided compliance is shown with the daily limitation, compliance will also be shown with the annual limitation.

**F. Miscellaneous Requirements**

1. The maximum capacity of the primary aluminum melt reverberatory furnace emissions unit (P003) is 4452 lbs/hr based on a bottleneck in the casting operation being fed by the furnace. Any modifications to the casting operation should be analyzed for any possible increase in the maximum capacity of the furnace. The permittee should be advised that an increase in the maximum capacity of the furnace may require a permit to install modification.
2. Modeling to demonstrate compliance with Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be 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 cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.