

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

American Precision Casting, Inc.
Attn: Steve VanderKlok
2400 Laflin Street
Chicago, Illinois 60608

Application No.: 96030058

I.D. No.: 031600CEQ

Applicant's Designation:

Date Received: March 6, 1996

Subject: Cast Foundry

Date Issued: October 21, 2002

Expiration Date: October 21, 2007

Location: 2400 Laflin Street, Chicago, 60608

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 2 reverberatory aluminum melting furnaces, 4 aluminum melting furnaces, zinc melting furnace, 4 mold drying ovens, spray booth, plaster mold operation with dust collection, resin storage tank, heat treating line consisting of a heat treating furnace and quench tank, mold sand mixing tank with dust collector, and cast knock-out pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., volatile organic material (VOM) to less than 25 tons/year). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
 - c. This permit supersedes all operating permits issued for this location.
2. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

3. Emissions and operation of the foundry operations shall not exceed the following limits:

<u>Equipment/Process</u>	<u>Metal Throughput</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/Ton)</u>	<u>Emissions</u>	
	<u>(T/Mo)</u>	<u>(T/Yr)</u>			<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Aluminum Melting (Total)	50	500	PM	4.3	215	1.08
			VOM	0.2	10	0.05
Zinc Melting	2	10	PM	0.005	0.01	0.01
			VOM	0.2	0.40	0.01
Core Making	51	510	PM	1.1	56	0.28
Pouring/Casting	51	510	PM	4.2	214	1.07
Casting Cooling	51	510	PM	2.8	143	0.71
Casting Shakeout	51	510	PM	3.2	8	0.82
Sand Handling and	51	510	PM	40.0	102	0.51
Core Oven	51	510	PM	1.8	92	0.46
			NO _x	0.5	26	0.13

These limits are based on standard AP-42 emission factors and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. Emissions and operation of coatings and sand mold components shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Lb/Mo)</u>	<u>(Lb/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
Mold Coating	150	1,500	150	0.75
Casting Coating	81	810	81	0.41
Thinners	220	2,200	220	1.10
Mold Sand Resin	3,060	30,600	3,060	15.30
Mold Sand Catalyst/Activator	900	9,000	900	4.50
			Total	22.06

These limits are based on the complete volatilization of the VOM content in the materials, material VOM usage = material VOM content x material usage, and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

5. Emissions and operation of natural gas combustion shall not exceed the following limits:

<u>Equipment/Process</u>	<u>Throughput</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(T/Mo)</u>	<u>(T/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Natural Gas	10	100	NO _x	100	1,000	5.00
Combustion			CO	84	840	4.20
			PM	7.6	76	0.38
			VOM	5.5	55	0.28
			SO ₂	0.6	6	0.03

These limits are based on standard AP-42 emission factors and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

6. This permit is issued based on negligible emissions of particulate matter (PM) from plaster mold mixing. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
7. Emissions from the use of casting coatings shall not exceed 15 lb/day or the source shall comply with 35 Ill. Adm. Code 218.204(j) (4) (A), pursuant to 35 Ill. Adm. Code 218.208(a).
8. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
9. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
10. The Permittee shall maintain records of the vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA.
11. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
12. The Permittee shall maintain the following records:
 - a. Natural gas usage (mmscf/month and mmscf/year);
 - b. Amount and type of metal melted (tons/month and tons/year);
 - c. Name, usage (gallons/month and gallons/year), VOM and HAP content (lb/gallon or % weight), and VOM and HAP emissions for the following materials:

- i. Sand mold resins;
 - ii. Casting coatings;
 - iii. Thinners;
 - iv. Sand mold activators; and
 - v. Mold coatings.
- d. Name, usage (gallons/day), (VOM content minus water and other exempted compounds), and VOM emissions (lb/day) shall be maintained for the casting coatings.
13. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
14. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
15. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

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16. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Material usage for the materials listed in Condition 12(c).

It should be noted that the metal finishing operations consisting of cutting, grinding, milling, sandblasting, and associated control devices are exempt from state permitting pursuant to 35 Ill. Adm. Code 201.146(aa) and (jj), respectively.

If you have any questions on this, please call Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:EEJ:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from American Precision Casting located in Chicago, Illinois operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. Limiting the usage of VOM containing materials. The resulting maximum emissions are well below the levels, e.g., 25 tons/year of VOM at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

1. Emissions and operation of the foundry operations shall not exceed the following limits:

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	<u>(T/Mo)</u>	<u>(T/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
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