

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

FPM - Buildex
Attn: Michael Migala
1349 West Bryn Mawr Avenue
Itasca, Illinois 60143

Application No.: 02060055

I.D. No.: 043450AAC

Applicant's Designation:

Date Received: June 18, 2002

Subject: Metal Heat Treating

Date Issued: April 23, 2003

Expiration Date: April 23, 2008

Location: 1349 West Bryn Mawr Avenue, Itasca

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 3 heat treating lines with quench tanks, 2 endothermic generators, and quench oil storage tank (1,000-gallon) 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 this source and I.D. #043450AAA to less than major source thresholds (i.e., emissions of volatile organic material (VOM) to less than 25 tons per year, and emissions of any single hazardous air pollutant (HAP) to less than 10 tons per year), since the facilities are defined as a single source pursuant to 39.5 of the Clean Air Act. 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. The combined maximum emissions for this source and the ITW-Buildex source are described in Attachment B.
- 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. Emissions and operation of natural gas combustion shall not exceed the following limits:

| <u>Process</u> | <u>Natural Gas Usage</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|---------------------------|--------------------------|-------------------|------------------|-----------------|------------------|-----------------|
| | <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Natural Gas Combustion | 13 | 142 | NO _x | 100 | 1,300 | 7.10 |
| | | | CO | 84 | 1,092 | 5.96 |
| | | | PM | 7.6 | 99 | 0.54 |
| | | | VOM | 5.5 | 72 | 0.39 |
| | | | SO ₂ | 0.6 | 8 | 0.04 |

These limits are based on standard AP-42 emission factors, natural gas as the only fuel fired in the units, 8,760 hours of operation, and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. Emissions and operation of quenching tanks shall not exceed the following limits:

| <u>Process</u> | <u>Metal Processed</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|----------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Oil Quenching | 1,430 | 10,000 | VOM | 1.4 | 2,002 | 7.00 |

These limits are based on maximum production rates, mass balance derived emission factor, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. This permit is issued based on negligible emissions of volatile organic material (VOM) from the quench oil storage tank. For this purpose, emissions shall not exceed nominal emission rates of 0.01 lb/hour and 0.044 ton/year.
5. 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.
6. 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.
7. The Permittee shall maintain the following records:
 - a. Natural gas usage (mmscf/month and mmscf/year);
 - b. Quench oil usage and amount sent off site (gallons/month and gallons/year); and
 - c. Total VOM and HAP emissions for the facility (lb/month and tons/year); and
 - d. Amount of metal processed (ton/mo and ton/yr).
8. 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.

9. 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.
10. 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

11. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Quench oil usage; and
 - b. Amount of quench oil sent off site.

It should be noted that any requested increase in emissions from either source may require that the other source's permit be opened for review of impact of the emission increase.

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

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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 Metal Heat Treating Facility and I.D. #043450AAA, 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. The facility is limiting quench oil usage and natural gas usage to less than 142 mmscf/year. The resulting maximum emissions are well below the levels, e.g., volatile organic material (VOM) to less than 25 tons per year, and emissions of any single hazardous air pollutant (HAP) to less than 10 tons per year 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 natural gas combustion shall not exceed the following limits:

| <u>Process</u> | <u>Natural Gas Usage</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|---------------------------|--------------------------|-------------------|------------------|-----------------|------------------|-----------------|
| | <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Natural Gas Combustion | 13 | 142 | NO _x | 100 | 1,300 | 7.10 |
| | | | CO | 84 | 1,092 | 5.96 |
| | | | PM | 7.6 | 99 | 0.54 |
| | | | VOM | 5.5 | 72 | 0.39 |
| | | | SO ₂ | 0.6 | 8 | 0.04 |

These limits are based on standard AP-42 emission factors, natural gas as the only fuel fired in the units, 8,760 hours of operation and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. Emissions and operation of quenching tanks shall not exceed the following limits:

| <u>Process</u> | <u>Metal Processed</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|----------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Oil Quenching | 1,430 | 10,000 | VOM | 1.4 | 2,002 | 7.00 |

3. This permit is issued based on negligible emissions of volatile organic material (VOM) from the quench oil storage tank. For this purpose, emissions shall not exceed nominal emission rates of 0.01 lb/hour and 0.044 ton/year.

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Attachment B - Combined Emission Summary

1. For FPM-Buildex (I.D. No. 043450AAC)

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

| <u>Process</u> | <u>Natural Gas Usage</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|---------------------------|--------------------------|-------------------|------------------|-----------------|------------------|-----------------|
| | <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Natural Gas Combustion | 13 | 142 | NO _x | 100 | 1,300 | 7.10 |
| | | | CO | 84 | 1,092 | 5.96 |
| | | | PM | 7.6 | 99 | 0.54 |
| | | | VOM | 5.5 | 72 | 0.39 |
| | | | SO ₂ | 0.6 | 8 | 0.04 |

These limits are based on standard AP-42 emission factors, natural gas as the only fuel fired in the units, 8760 hours of operation. and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. Emissions and operation of quenching tanks shall not exceed the following limits:

| <u>Process</u> | <u>Metal Processed</u> | | <u>Pollutant</u> | <u>Emission</u> | <u>Emissions</u> | |
|----------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(Ton/Yr)</u> |
| Oil Quenching | 1,430 | 10,000 | VOM | 1.4 | 2,002 | 7.00 |

c. This permit is issued based on negligible emissions of volatile organic material (VOM) from the quench oil storage tank. For this purpose, emissions shall not exceed nominal emission rates of 0.01 lb/hour and 0.044 ton/year.

2. For ITW-Buildex (I.D. No. 043450AAA)

a. Emissions and operation of VOM emissions from the coating operations for both locations 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> |
| Paints/Coatings (Total) | 5,000 | 34,740 | 5,000 | 17.37 |

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

- b. This permit is issued based on ITW-Buildex using clean-up solvents that do not contain any HAPs or VOM.
- c. Emissions and operation of natural gas combustion for all gas fired units at both locations shall not exceed the following limits:

| <u>Process</u> | <u>Natural Gas Usage</u> | | <u>Pollutants</u> | <u>Emission</u> | <u>Emissions</u> | |
|---------------------------|--------------------------|-------------------|-------------------|-----------------|------------------|---------------|
| | <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | <u>Factor</u> | <u>(Lb/Mo)</u> | <u>(T/Yr)</u> |
| Natural Gas Combustion | 10 | 70 | NO _x | 100 | 1,000 | 3.50 |
| | | | CO | 84 | 840 | 2.94 |
| | | | PM | 7.6 | 76 | 0.27 |
| | | | VOM | 5.5 | 55 | 0.19 |
| | | | SO ₂ | 0.6 | 6 | 0.02 |

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

- d. This permit is issued based on negligible emissions of particulate matter (PM) from the mechanical zinc plating line, 3 powder coating lines, 3 painting machines, electro-deposition coating line, and 2 liquid coating lines. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- e. 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.

It should be noted that any requested increase in emissions from either source may require that the other source's permit be opened for review of impact of the emission increase.

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