

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT- RENEWAL
NESHAP SOURCE

PERMITTEE

Federal Signal Corporation
Attn: Thomas Longtin
2645 Federal Signal Drive
University Park, Illinois 60466-3195

Application No.: 83010047 I.D. No.: 197072AAC
Applicant's Designation: POWDERCOAT Date Received: March 15, 2001
Subject: Manufacture of Signal Devices
Date Issued: Expiration Date:
Location: 2645 Federal Signal Drive, University Park

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a vapor degreaser, four natural gas fired boilers (3.35 mmBtu/hr, 2.0 mmBtu/hr, and two - 21 mmBtu/hr units), bake ovens, air makeup units, paint booths, powder coating booths with powder filters and reclaim systems, and a humiseal coating operation, 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 volatile organic material (VOM) and hazardous air pollutants (HAPs) from the source to less than major source thresholds, i.e., VOM to less than 25 tons per year, and HAPs to less than 10 tons per year of any single HAP and 25 tons per year of any combination of such HAPs, as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) issued for this location.
- 2a. The open top vapor degreaser is subject to 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement. The United States EPA issued this final rule on December 2, 1994.
- b. The Permittee must be in compliance with 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning on or before December 2, 1997.
- c. The degreaser shall comply with the requirements of 35 Ill. Adm. Code 218.183.

- 3a. Emissions and operation of the vapor degreaser shall not exceed the following limits:

Trichloroethylene Usage		VOM and HAP Emissions	
(Gal/Mo)	(Gal/Yr)	(Ton/Mo)	(Ton/Yr)
129.7	1,557	0.8	9.5

These limits are based on maximum solvent usage and solvent density of 12.2 lbs/gallon. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions and operation of all gas-fired units combined shall not exceed the following limits:

Pollutant	Natural Gas Consumption		Emissions	
	(mmscf/Mo)	(mmscf/Yr)	(Ton/Mo)	(Ton/Yr)
	15	100		
	Emission Factor (Lb/mmscf)		Emissions	
NO _x	100		0.8	5.0
CO	84		0.7	4.2
PM	7.6		0.1	0.4
VOC	5.5		0.1	0.3

These limits are based on maximum gas consumption and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. Total emissions of VOM from the paint booths and humiseal coating operation shall not exceed 0.3 tons/month and 2.8 tons/year.
- d. This permit is issued based on negligible emissions of PM from the powder coating booths. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
4. The Permittee shall maintain monthly records of the following items:
- Trichloroethylene usage (gal/mo, gal/yr);
 - Natural gas consumption (mmscf/mo, mmscf/yr);
 - Name, usage, VOM content, and HAP content of all coatings, thinners, and clean-up solvents (gallons, lb/gal, lb/gal; and
 - VOM and HAP emissions (ton/mo, ton/yr).

5. For determination of compliance with the limits of this permit, solvent usage in the degreaser shall be determined by the following equation:

$$U = V - (W \times P)$$

Where:

- U = Solvent usage for compliance determinations (gallons).
V = Virgin solvent^A added to the degreasers (gallons), as determined by daily addition log sheets.
W = Waste solvent^B removed from the degreasers and sent off-site for reclamation or disposal, as determined by monthly manifests.
P = Percent concentration of solvent in waste, as determined by analysis/testing^C.

^A For purposes of this permit, virgin solvent is defined as unused solvent.

^B For purposes of this permit, waste solvent is defined as used solvent.

^C The percent concentration of solvent in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least 3 years from the date of entry and shall be made available for inspection and copying by the Agency and 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 Agency request for records during the course of a source inspection.
7. 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 Agency's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
8. 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

9. In the event that the operation of this source 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.

It should be noted that wave soldering and cleaning equipment are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(y) and (rr), respectively.

If you have any questions on this, please call Jim Kallmeyer 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 - Emissions Summary

This attachment provides a summary of the maximum emissions from the manufacturing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Agency used the annual operating scenario which results in maximum emissions from such plant. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM, 10 tons per year of a single HAP, and 25 tons per year of combined HAPs 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.

- 1a. Emissions and operation of the vapor degreaser shall not exceed the following limits:

<u>Trichloroethylene Usage</u>		<u>VOM and HAP Emissions</u>	
<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
129.7	1,557	0.8	9.5

These limits are based on maximum solvent usage and solvent density of 12.2 lbs/gallon. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions and operation of all gas-fired units combined shall not exceed the following limits:

<u>Pollutant</u>	<u>Natural Gas Consumption</u>		<u>Emissions</u>	
	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
	15	100		
	<u>Emission Factor</u>		<u>Emissions</u>	
	<u>(Lb/mmscf)</u>		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
NO _x	100		0.8	5.0
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- c. Total emissions of VOM from the paint booths and humiseal coating operation shall not exceed 0.3 tons/month and 2.8 tons/year.
- d. This permit is issued based on negligible emissions of PM from the powder coating booths. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

PROJECT SUMMARY

I. INTRODUCTION

An application has been submitted by Federal Signal Corporation to renew the Federally Enforceable State Operating Permit (FESOP) for their parts manufacturing plant. These limits would prevent the facility from being a major source of emissions so that an operating permit does not have to be obtained under the Clean Air Act Permit Program. The proposed limits would be accompanied by recordkeeping and reporting requirements to assure that the facility is operated as a non-major source. These conditions would be enforceable by both the State of Illinois and USEPA.

II. SOURCE DESCRIPTION

Federal Signal Corporation manufactures light fixtures for cars, sirens, and other devices. This facility has emission units consisting of a vapor degreaser, natural gas combustion units, paint booths, and powder coating booths.

III. EMISSIONS

The major air emissions from the coating operations are volatile organic material (VOM) and hazardous air pollutants (HAPs).

The proposed permit includes limitations that restrict the potential annual emissions of VOM and HAPs to below major thresholds.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois. This site readily complies with all applicable Board standards.

V. PROPOSED PERMIT

The conditions of the proposed permit contain limitations and requirements to assure that this facility will be operated as a non-major source. The permit sets limitations on the solvent usage (trichloroethylene). These limitations are consistent with the historical operation and capacity of the facility

The permit conditions also establish appropriate compliance procedures, including inspection practices, recordkeeping requirements, and reporting requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the facility is operating within the limitations set by the permit and are properly controlling emissions.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's determination that the facility meets all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft permit. The Illinois EPA is therefore proposing to renew this permit with federally enforceable limits for this operation.

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Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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