217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - REVISED

PERMITTEE

Kester Solder
Attn: Malcolm Wise
515 East Touhy Avenue
Des Plaines, Illinois 60018

Application No.: 86040022 I.D. No.: 031063AGL
Applicant's Designation: IEPAAP991 Date Received: July 24, 2000
Subject: Solder and Flux Manufacturing Plant
Date Issued: October 20, 2000 Expiration Date: February 7, 2002
Location: 515 East Touhy Avenue, Des Plaines

Permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of seven solder melting pots (six of them are controlled by six electrostatic air filters), thirteen chemical mixing tanks (three of them controlled by scrubber), six flux coaters controlled by filter, polymer products mixing line controlled by filter, nine solder extruders with eight flux mixing kettles, solder paste manufacturing line controlled by filter, four solder rolling mills, four soldering machines, powder solder manufacturing station controlled by filter, waste water evaporator and one chemical distillation unit described in 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., 25 tons/year for VOM, 10 tons/year for a single HAP and 25 tons/year for totaled HAP). As a result, the source is excluded from the requirements 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 for this location.

2. This permit is issued based on the fact that the facility does not conduct lead smelting operations, as defined in the 40 CFR 63 Subpart X, Section 63.542, in the lead melting pots. As a result this project is not subject to 40 CFR Part 60 Subpart L: Standards of Performance for

Secondary Lead Smelters and 40 CFR 63 Subpart X: National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting.

3. This permit is issued based on negligible plant-wide emission of lead from the solder melting pots, solder extruders, solder paste and solder powder manufacturing operations and soldering machines. This limit is based on the combined processing rate of the virgin lead and scrap metals of 5,000 tons per year and stack tests emission data. For this purpose, emission shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

4a. This permit is issued based upon the flux coaters being subject to the VOM emission limitations of 35 Ill. Adm. Code Part 218 Subpart F: Coating Operations. Compliance with these requirements is achieved due to the use of the coating with VOM content not exceeding 3.3 lb/gal in accordance with the requirements of Sections 218.204(j)(2)(B).

b. The VOM emissions from the flux coating operations shall not exceed 1.0 ton/yr. This limit is based on the maximum flux usage, maximum VOM content and maximum operating hours. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

5. Usage of raw materials and VOM emissions from thirteen chemical mixing tanks shall not exceed the following limits:

Raw Materials Usage (Ton/Mo)	Raw Materials Usage (Ton/Yr)	Emission Factor (Lb/Ton)	VOM Emissions (Ton/Mo)	VOM Emissions (Ton/Yr)
200	2,300	6.2	0.6	7.1

These limits are based on the maximum production rate and standard emission factor (FIRE, SIC 30102005). Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

6a. The mixing operations involving hydrochloric acid (HCl) shall be only performed in the tanks controlled by the scrubber and when scrubber is in operation. Use of hydrochloric acid in the uncontrolled tanks is allowed in the quantity not exceeding 10 gal/day, 50 gal/month.

b. This permit is issued based on negligible emission of hydrogen chloride (HCl) from the mixing tanks. This limit is based on the hydrochloric acid usage not exceeding 30 tons/yr, maximum acid concentration 35%, emission factor of HCl 10%, and scrubber efficiency 90%. For this purpose, emission shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

7. This permit is issued based on negligible emission of volatile organic material and particulate matter from the polymer products mixing line and chemical distillation unit. For this purpose, emission of each contaminant from each emission unit shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

8. The VOM emissions from the solder extruders shall not exceed 1.2 ton/yr. This limit is based on the maximum VOM-containing flux usage and maximum VOM content of the flux. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

9. The VOM emissions from the four solder rolling mills shall not exceed 1.0 ton/mo and 10.0 ton/yr. These limits are based on the maximum organic coolant usage. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

10. This permit is issued based on negligible emission of particulate matter from the solder melting pots, polymer products mixing line, solder extruders, solder paste manufacturing operations, soldering machines, powder solder manufacturing operations, waste water evaporator. For this purpose, emission from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

11. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.

12. The Permittee shall maintain monthly records of the following items:

    a. Amount of lead-containing materials processed (Ton/Mo, Ton/Yr);

    b. Amount of raw materials processed in the mixing tanks (Ton/Mo, Ton/Yr);

    c. Hydrochloric Acid (HCl) usage (Ton/Mo, Ton/Yr) and its concentration (%);

    d. Amount of flux used in the flux coaters (Lb/Mo, Ton/Yr) and its VOM content (Wt.%);

    e. Amount of flux used in the solder extruders (Lb/Mo, Ton/Yr) and its VOM content (Wt.%);

    f. Amount of organic coolant used in the rolling mills (Ton/Mo, Ton/Yr) and its VOM content (Wt.%);

    g. The VOM and HAP emission calculations (Ton/Mo, Ton/Yr).

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 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 exceedances or violation and efforts to reduce emissions and future occurrences.

15. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year:

    a. Lead-containing materials process rate (Ton/Yr);

    b. Amount of raw materials processed in the mixing tanks (Ton/Yr);

    c. Hydrochloric acid usage (Ton/Yr);

    d. Usage of organic coolant in solder rolling mills (Ton/Yr).

16. 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, IL 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 - Regional Office
    9511 West Harrison
    Des Plaines, Illinois 60016

It should be noted that this permit has been revised to include operation of equipment described in construction permits 99100026 and 00070066. This revision does not relax monitoring, recordkeeping, or reporting requirements contained in federally enforceable conditions of this permit. These permit conditions assure that this source would not be a major source for purpose of CAAPP.

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

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

DES:VJB:psj

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

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Solder and Flux Manufacturing Plant 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. This is processing of 5,000 tons of lead-containing materials, production of 2,3000 tons of solvent-based soldering materials, usage of 2.2 tons of VOM in flux coaters and solder extruders, usage of 10.0 tons of organic coolant and usage of 30 tons of hydrochloric acid per year. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAP 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 material is handled, and control measures are more effective than required in this permit.

1. This permit is issued based on negligible plant-wide emission of lead from the solder melting pots, solder extruders, solder paste and solder powder manufacturing operations and solder machines. This limit is based on the combined processing rate of the virgin lead and scrap metals of 5,000 tons per year and stack tests emission data. For this purpose, emission shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

2. The VOM emissions from the flux coating operations shall not exceed 1.0 ton/yr. This limit is based on the maximum flux usage, maximum VOM content and maximum operating hours.

3. Usage of raw materials and VOM emissions from thirteen chemical mixing tanks shall not exceed the following limits:

Raw Materials Usage (Ton/Mo)	Raw Materials Usage (Ton/Yr)	Emission Factor (Lb/Ton)	VOM Emissions (Ton/Mo)	VOM Emissions (Ton/Yr)
200	2,300	6.2	0.6	7.1

4. This permit is issued based on negligible emission of hydrogen chloride (HCl) from the mixing tanks. This limit is based on the hydrochloric acid usage not exceeding 30 tons/yr, maximum acid concentration 35%, emission factor of HCl 10% and scrubber efficiency 90%. For this purpose, emission shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

5. This permit is issued based on negligible emission of volatile organic material and particulate matter from the polymer products mixing lines and chemical distillation unit. For this purpose, emission of each contaminant from each emission unit shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

6. The VOM emissions from the solder extruders shall not exceed 1.2 ton/yr. This limit is based on the maximum VOM-containing flux usage and maximum VOM content of the flux.

7. The VOM emissions from the four solder rolling mills shall not exceed 1.0 ton/mo and 10.0 ton/yr. These limits are based on the maximum organic coolant usage.

8. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.

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