

SUPPLEMENT to PERMIT No. 168-00
Stanhope Tool, Inc.
Madison Heights, Michigan
December 7, 2000

GENERAL CONDITIONS

1. Rule 201(1) - The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule.
2. Rule 201(4) - If the installation, reconstruction, relocation, or alteration of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install.
3. Rule 201(6)(a) - If this Permit to Install is issued for a process or process equipment located at a stationary source that is subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, trial operation is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install and until the appropriate terms and conditions of this Permit to Install have been incorporated into the Renewable Operating Permit. Upon incorporation of the appropriate terms and conditions into the Renewable Operating Permit, this Permit to Install shall become void.
4. Rules 201(6)(b) - If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install.
5. Rule 201(8) and Section 5510 of Act 451, P.A. 1994 - The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act.
6. Rule 219 - The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b) and (c) of R 336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality.

7. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.
8. Rule 912 - The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the District Supervisor within 10 days, with the information required in this rule.
9. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, P.A. 1994 or the Clean Air Act.
10. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
11. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, P.A. 1994, and the rules promulgated thereunder.
12. Rule 301 - Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303.
 - a) A six-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this permit to install.
13. Rule 370 - Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2).

14. Rule 285 - Except as allowed by Rule 285 (a), (b), and (c), applicant shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division.
15. The Department may require the applicant to conduct acceptable performance tests, at the applicant's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001.

SPECIAL CONDITIONS
 December 7, 2000
 (13 Special Conditions)

1. The following table identifies the emission unit and emission group designations for the equipment and processes covered by this permit. **[R 336.1201]**

<i>Emission Group ID</i>	<i>Emission Unit ID</i>	<i>Equipment / Description</i>	<i>Stack</i>
EGHARDCHROME	N/A	Six hard chromium electroplating tanks and one cross flow wet scrubber	SV-HRDCHRM
N/A	EUTCEWIPE	Miscellaneous manual wiping activities using trichloroethylene	N/A

EGHARDCHROME

2. The total chromium emission rate from each hard chromium electroplating tank in EGHARDCHROME shall not exceed 0.03 milligram per dry standard cubic meter. **[R 336.1901 and 40 CFR 63.342(c)(1)(ii)]**
3. The applicant shall not operate any tank in EGHARDCHROME unless the cross flow scrubber, hereinafter "control," is installed and operating properly. Proper operation includes complying with Special Condition 4 and with all aspects of the operation and maintenance plan, hereinafter "O&M plan" (see Special Condition 7), that affect the operation of the control. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)]**
4. The Applicant shall use fresh water for any make-up water, and shall supply this water to the control at the top of the unit, except as allowed in Table 1 to 40 CFR 63.342. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)(3)(i)(B)]**
5. The Applicant shall equip and maintain the control with devices to monitor the pressure drop across the control and the velocity pressure at the inlet of the control. The devices shall be acceptable to the District Supervisor, Air Quality Division. **[R 336.1901, R 336.1910, 40 CFR 63.343(c)(2)(ii), and 40 CFR 63.344(d)]**
6. Applicant shall comply with the applicable work practice standards in the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart N. As part of the actions required to comply with the work practice standards, the Applicant shall perform inspections on the control including, but not limited to, the following. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)]**
- a. Once each calendar quarter, visually inspect the control to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical

- attack on the structural integrity of the control. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)(3)(i)(B)]**
- b. Once each calendar quarter, visually inspect the back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)(3)(i)(B)]**
 - c. Once each calendar quarter, visually inspect the ductwork from each tank in EGHARDCHROME to the control to ensure there are no leaks. **[R 336.1901, R 336.1910, and 40 CFR 63.342(f)(3)(i)(B)]**
7. Upon issuance of this permit, the applicant shall not operate any tank in EGHARDCHROME unless the O&M plan specified in Appendix A has been implemented and is maintained. Applicant shall keep the washdown procedure summary sheets and recordkeeping forms referenced in the O&M plan on file and available for inspection by the Department as long as the O&M plan is in effect. Upon modification of the plan pursuant to 40 CFR 63.342(f) or R 336.1911, applicant shall implement and maintain the modified O&M plan. The Applicant shall modify the plan if required to do so by the Department, or if the plan fails to address a malfunction or inadequately addresses a malfunction. **[R 336.1901, R 336.1911, 40 CFR 63.342(f)(2)(ii), and 40 CFR 63.342(f)(3)(ii)]**
8. Once each day that any tank in EGHARDCHROME operates, Applicant shall monitor and record the pressure drop across the control, the velocity pressure at the inlet of the control, and the date and time the readings were taken. If either the pressure drop or the velocity pressure varies outside its acceptable range, Applicant shall document the variation and review the O&M plan procedures. Applicant shall also document any corrective action. The acceptable range for pressure drop across the control shall be either within the range determined during multiple performance tests showing compliance or no more than 1 inch water gauge above or below the pressure drop established by a single test showing compliance. The acceptable range for velocity pressure at the inlet of the control shall be either within the range determined during multiple performance tests showing compliance or no more than 10% above or below the velocity pressure established by a single test showing compliance. Applicant shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **[R 336.1901, R 336.1910, and 40 CFR 63.343(c)(2)(ii)]**
9. Applicant shall maintain written records of inspections required to comply with the applicable work practice standards of 40 CFR 63.342(f). Each record shall include all the information listed below. Applicant shall keep these records on file for a period of at least five years and make them available to the Department upon request. **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**
- a. The device inspected **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**
 - b. The date of the inspection **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**
 - c. The approximate time of the inspection **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**
 - d. A brief description of the working condition of the device during the inspection **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**

- e. Any actions taken to correct deficiencies found during the inspection **[40 CFR 63.342(f) and 40 CFR 63.346(b)(1)]**
- 10. Monitoring and recording of emissions, operating, and maintenance information is required to comply with the federal National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and N. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the Department upon request. **[40 CFR 63.346]**
- 11. The exhaust gases from EGHARDCHROME shall be discharged unobstructed vertically upwards to the ambient air from stack SV-HRDCHRM with a maximum diameter of 24 inches at an exit point not less than 40 feet above ground level. **[R 336.1901]**

EUTCEWIPE

- 12. Applicant shall not use more than 1,000 pounds per year of trichloroethylene (TCE) in EUTCEWIPE. This annual limit shall be based upon a 12 month rolling time period as determined at the end of each calendar month. Monthly records of TCE usage and calculations showing TCE usage for the rolling 12 month time period shall be kept on file for a period of at least five years and made available to the Department upon request. **[R 336.1702(a) and R 336.1901]**
- 13. In order to minimize emissions of TCE, Applicant shall follow the handling procedures in Appendix B. **[R 336.1702(a) and R 336.1901]**

Appendix A

Operation and Maintenance Plan
Hard Chromium Electroplating Tanks and Associated Packed Bed Scrubber
Stanhope Tool, Inc.
395 West Girard
Madison Heights, Michigan

- A minimum of once per calendar quarter, the scrubber will be inspected to ensure that there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the scrubber.
- A minimum of once per calendar quarter, visually inspect the back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.
- A minimum of once per calendar quarter, the scrubber spray nozzles will be inspected. This inspection should verify that the spray pattern is even and uniform and should cover an arc as necessary to prevent problems related to poor liquid distribution.
- A minimum of once per calendar quarter, the scrubber float and water make-up flow shall be inspected to ensure that fresh water is available for the spray nozzles.
- A minimum of once per calendar quarter, the fan and fan motor shall be inspected to ensure that there is not excessive vibration or excessive bearing temperature. In addition, the fan belt shall be checked for proper tension and/or excessive wear.
- The fan and motor bearings shall be greased at least annually.
- A minimum of once per calendar quarter, the back portion of the mist eliminator shall be inspected to ensure that it is dry and that there is no breakthrough of chromic acid mist.
- A minimum of once per calendar quarter, the ductwork leading to the packed bed scrubber will be inspected for leaks.
- The velocity pressure at the inlet to the packed bed scrubber and the static pressure loss across the scrubber packing shall be monitored and recorded daily. The velocity pressure shall be between 0.675 and 0.825 inches of water and the static pressure loss shall be between 0.3 and 2.3 inches of water. When the velocity pressure gets close to the lower boundary and/or the static pressure gets close to the upper boundary, the scrubber packing shall be washed down using the procedures stipulated in the washdown procedures summary sheets. The sheets will be made available upon request.

- A minimum of once per calendar quarter, the pitot tube and pressure gauge assembly shall be maintained by:
 - (1) checking the pitot tube end for damage or fatigue;
 - (2) removing the pitot tube from the stack and rinsing it with water;
 - (3) placing the pitot tube back into the stack and rotating 180 degrees to ensure that the same zero reading is obtained; and,
 - (4) visually inspecting the condition of the tubes between the pitot tube and the pressure gauges for cracking or leaks.

If any defects are found pursuant to the aforementioned observations, the deficient equipment will be replaced.

- Records of the previously listed inspections as well as any corrective actions taken to (1) replace defective equipment (2) repair defective equipment, or (3) alter the operation of any equipment shall be recorded on recordkeeping forms and be made available upon request.
- Routine maintenance replacement parts such as fan motor belts, a replacement pitot tube, rubber tubing and other miscellaneous parts shall be kept on site for possible malfunctions.
- If a malfunction occurs (i.e., the static pressure loss and/or velocity pressure at the inlet of the unit are out of the acceptable ranges), the malfunction shall be corrected as soon as possible and a malfunction correction report will be completed identifying the malfunction and the actions taken to correct the malfunction (see attached form). The malfunction shall be reported to the Air Quality Division of Michigan's Department of Environmental Quality via telephone within two days and shall be reported in writing to AQD within seven days.

APPENDIX B

Trichloroethylene Handling Procedures
Stanhope Tool, Inc.
395 West Girard Avenue
Madison Heights, Michigan 48071

- (1) The trichloroethylene (TCE) storage drum shall be kept closed at all times except when the drum pump is being installed or removed because the drum is empty.
- (2) TCE shall be dispensed only into coffee cans or other similar small metal containers that have corresponding tightly fitting lids. This liquid transfer shall be conducted in a manner that minimized or eliminates any spilling of the TCE.
- (3) At any time that the TCE that has been dispensed into small metal containers is not being used, the container lid shall be on the container.
- (4) When rags or other cloth material is dipped into the container for wipe cleaning activities, only the amount of solvent necessary to perform the wipe cleaning shall be applied to the rag or other cloth material. When the rag or other cloth material is removed from the metal container, the rag or other cloth material shall be held over the container until dripping ceases.
- (5) All rags or other cloth materials that will be reused or are to be disposed of shall be stored in closed containers.