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Facility Name: **Nick's Plating Company**

Application Number: **08-3911**

Date: **(Date will be entered upon final issuance)**

**GENERAL PERMIT CONDITIONS**

**TERMINATION OF PERMIT TO INSTALL**

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**NOTICE OF INSPECTION**

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

**CONSTRUCTION OF NEW SOURCES**

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations.

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Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

#### **PERMIT TO INSTALL FEE**

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

#### **PUBLIC DISCLOSURE**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

#### **APPLICABILITY**

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### **BEST AVAILABLE TECHNOLOGY**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **PERMIT TO OPERATE APPLICATION**

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

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**SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION**

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Nick's Plating Company** located in **Miami** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P001	Decorative chrome electroplating tank with foam blanket	*	40 CFR Part 63 Subpart N  3745-31-05	The surface tension not to exceed 45 dynes per centimeter (3.1 E-3 pounds-force per foot)  4.35 E-4 TPY chromium

\* BAT is compliance with the applicable OAC rules and NESHP requirements, used of the foam blanket and wetting agents, recordkeeping, and reporting.

SUMMARY  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Chromium	4.35 E-4

NESHAP REQUIREMENTS

The following source(s) are subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants

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(NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 61.

<u>Source Number</u>	<u>Source Description</u>	<u>NESHAP Regulation (Subpart)</u>
P001	decorative chrome electroplating tank w/foam blanket	Part 63, Subpart N

The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 61 are also federally enforceable.

Pursuant to the NESHAP, the source owner/operator is required to report the following milestones:

- a. date of commencement of construction ( no later than 30 days after such date);
- b. anticipated date of initial start-up (not more than 60 days or less than 30 days prior to such date);
- c. actual date of initial start-up (within 15 days after such date); and
- d. date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P.O. Box 163669  
Columbus, OH 43216-3669

and **Regional Air Pollution Control Agency**  
**451 West Third Street**  
**P. O. Box 972**  
**Dayton, Ohio 45422**

#### REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Regional Air Pollution Control Agency, 451 West Third Street, P.O. Box 972, Dayton, Ohio 45422.**

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**ADDITIONAL SPECIAL TERMS AND CONDITIONS**

**A. Additional Terms and Conditions**

1. The permittee shall control chromium emissions discharged to the atmosphere by not allowing the surface tension of the electroplating or anodizing bath to exceed 45 dynes per centimeter ( $3.1 \times 10^{-3}$  pound-force per foot) at any time during operation of the tank.

**B. Operational Restrictions**

1. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
2. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
3. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Regional Air Pollution Control Agency, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emission unit. Based on this information, the Regional Air Pollution Control Agency may require that the permittee make changes to the operation and maintenance plan if that plan:
  - a. does not address a malfunction that has occurred;
  - b. fails to provide for the operation of the emission units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or
  - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

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4. The permittee shall implement an operation and maintenance plan that includes the following elements:
  - a. the plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emissions limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment;
  - b. the plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur;
  - c. the plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions;
  - d. if the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs;
  - e. if actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the Regional Air Pollution Control Agency;
  - f. the permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Regional Air Pollution Control Agency for the life of the emission unit. If the operation and

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maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the Regional Air Pollution Control Agency for a period of five years after each revision to the plan; and,

- g. the permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.

**C. Monitoring and/or Record Keeping Requirements**

1. During the initial performance test, the permittee shall determine the outlet chromium concentration using the procedures described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a wetting agent-type or combination wetting agent-type/foam blanket fume suppressant. The permittee shall establish as the site-specific operating parameter the surface tension of the bath using Method 306B of 40 CFR Part 63, Subpart N, setting the maximum value that corresponds to compliance with the applicable emission limitations. In lieu of establishing the maximum surface tension during the performance test, the owner or operator may accept 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation.
2. On and after the date on which the initial performance test is required to be completed under §63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected emissions unit at a surface tension greater than the value established during the performance test, or greater than 45 dynes/cm if the permittee is using this value as the maximum surface tension value, shall constitute noncompliance with the standards.
3. The surface tension shall be monitored according to the following schedule:
  - a. the surface tension shall be measured once every four hours during operation of the tank with a

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stalagmometer or a tensiometer as specified in Method 306B of 40 CFR Part 63, Subpart N;

- b. the time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every four hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed is once every 40 hours of tank operation;
  - c. once an exceedance occurs, as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed. A subsequent decrease in frequency shall follow the schedule in paragraph (b) above; and,
  - d. once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every four hours must be resumed, with a decrease in monitoring frequency allowed as in paragraph (b) above.
4. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A.
  5. The permittee also shall maintain the following records:
    - a. inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection;

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- b. records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
- c. records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
- d. records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
- e. other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan;
- f. test reports documenting results of all performance tests;
- g. all measurements as may be necessary to determine the conditions of performance tests;
- h. records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected;
- i. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment;
- j. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment;
- k. the total process operating time of the emission unit during the reporting period;
- l. all documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and §63.9 and §63.10 of 40 CFR Part 63, subpart A; and,

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- m. records of the date and time that fume suppressants are added to the electroplating or anodizing bath.
6. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

**D. Reporting Requirements**

1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR part 63 subpart A. These reports shall be made to the Regional Air Pollution Control Agency and shall be sent by U.S. mail, fax or by another courier.
  - a. Submittals sent by U.S. mail shall be postmarked on or before the specified date.
  - b. Submittals sent by other methods shall be received by the Regional Air Pollution Control Agency on or before the specified date.
2. The permittee shall submit to the Regional Air Pollution Control Agency an initial notification report that contains the following information:
  - a. the name, title, and address of the owner or operator;
  - b. the address (i.e., physical location) of the emissions unit;
  - c. identification of the applicable emission limitations and compliance date;
  - d. a statement of whether the affected emissions unit is located at a major source or at an area source; and,
  - e. a brief description of each affected emission unit, including the type of process operation performed.

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The initial notification report was submitted on October 1, 1998.

3. The permittee shall submit a Notification of Compliance Status to the Regional Air Pollution Control Agency, signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:
  - a. the applicable emission limitations and the methods there were used to determine compliance with this limitation;
  - b. if a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device;
  - c. the type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device. (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement;)
  - d. for each monitored parameter for which a compliant value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;
  - e. the methods that will be used to determine continuous compliance;
  - f. a description of the air pollution control technique used for each emission point;
  - g. a statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards;

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- h. a statement by the owner or operator as to whether the emissions unit is in compliance;
- i. records from any 12-month period preceding the compliance date shall be used or a description of how operations will change to meet a small designation shall be provided.

The Notification of Compliance Status was submitted on August 11, 1998.

- 4. The permittee shall report to the Regional Air Pollution Control Agency the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.
- 5. The permittee shall prepare an ongoing compliance status report annually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the Regional Air Pollution Control Agency to document the ongoing compliance status of the emissions unit. This report shall include the following:
  - a. the company name and address of the emissions unit;
  - b. an identification of the operating parameter that is monitored for compliance determination;
  - c. the relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section;
  - d. The beginning and ending dates of the reporting period;
  - e. the total operating time of the emissions unit during the reporting period;
  - f. a summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time

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- during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;
- g. a certification by a responsible official that the work practice standards in this permit were followed in accordance with the operation and maintenance plan for the emissions unit;
  - h. if the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit;
  - i. a description of any changes in monitoring, processes, or controls since the last reporting period;
  - j. the name, title, and signature of the responsible official who is certifying the accuracy of the report; and,
  - k. The date of the report.
6. The permittee shall submit semiannual reports if the following conditions are met:
- a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and,
  - b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
7. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
8. The Regional Air Pollution Control Agency may determine on a case-by-case basis that the summary report shall be

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completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.

9. The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:
  - a. for 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
  - b. the permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63, subpart A and this permit; and,
  - c. the Regional Air Pollution Control Agency does not object to a reduced reporting frequency. The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:
    - i. the permittee notifies the Regional Air Pollution Control Agency in writing of its intentions to make such a change. The Regional Air Pollution Control Agency may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the Regional Air Pollution Control Agency will notify the permittee in writing within 45 days after receiving notice.

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This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted; and,

- ii. if monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.

**E. Testing Requirements**

1. Method 306B, "Surface Tension Measurement and Recordkeeping for Tanks Used at Decorative Chromium Electroplating and Anodizing Facilities," shall be used to measure the surface tension of electroplating and anodizing baths.
2. Compliance with the emission limit(s) in this permit shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
4.35 E-4 TPY chromium

Applicable Compliance Method-  
Compliance shall be based upon the hexavalent chromium emission factor of 2.0 mg/A-hr (as a worst case, from EPA-450/4-84-007g) multiplied by the maximum rectifier capacity of 750 amps per hour and the maximum operating schedule of 8760 hrs/yr and by the conversion factors of 1 g/1000 mg and 1 lb/454 g. The result shall then be multiplied by a control efficiency of 97% (1-.97) for the foam blanket and dividing by 2000 lbs/ton.