



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 6-2130-00097/00001
Effective Date: 01/13/2014 Expiration Date: 01/12/2024

Permit Issued To: ELG UTICA ALLOYS INC
378 GROS BLVD STE #3
HERKIMER, NY 13350

Contact: BRET COPPLE
ELG UTICA ALLOYS INC
378 GROS BLVD STE #3
HERKIMER, NY 13350
(315) 733-0475

Facility: ELG UTICA ALLOYS-HERKIMER
378 GROS BLVD BLDG #1
HERKIMER, NY 13350

Description:
This renewal/modification is being done to add an additional kiln to this pre-existing permit. The permit is also open to change capping levels.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: PATRICK M CLEAREY
NYSDEC - REG 6
207 GENESEE ST
UTICA, NY 13501

Authorized Signature: _____ Date: ___ / ___ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

Facility Level

- Submission of application for permit modification or renewal-REGION 6 SUBOFFICE - UTICA



DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 6
SUBOFFICE - UTICA
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 6 Sub-office
Division of Environmental Permits
State Office Building, 207 Genesee Street
Utica, NY 13501-2885
(315) 793-2555

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Permit Under the Environmental Conservation Law (ECL)

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY
PERMIT**

IDENTIFICATION INFORMATION

Permit Issued To:ELG UTICA ALLOYS INC
378 GROS BLVD STE #3
HERKIMER, NY 13350

Facility: ELG UTICA ALLOYS-HERKIMER
378 GROS BLVD BLDG #1
HERKIMER, NY 13350

Authorized Activity By Standard Industrial Classification Code:
5093 - SCRAP AND WASTE MATERIALS

Permit Effective Date: 01/13/2014

Permit Expiration Date: 01/12/2024



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 201-3.1 (a): Exempt and Trivial Activities Applicability
- 2 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 4 6 NYCRR 211.1: Air pollution prohibited
- 5 6 NYCRR 212.4 (a): Compliance Demonstration
- 6 6 NYCRR 212.4 (a): Compliance Demonstration
- 7 6 NYCRR 212.4 (a): Compliance Demonstration
- 8 6 NYCRR 212.4 (c): Compliance Demonstration
- 9 6 NYCRR 212.6 (a): Compliance Demonstration
- 10 6 NYCRR 212.11 (b) (1): Compliance Demonstration
- 11 6 NYCRR 212.11 (b) (1): Compliance Demonstration
- 12 6 NYCRR Part 226: Compliance Demonstration
- 13 6 NYCRR 226.2: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 14 ECL 19-0301: Contaminant List
- 15 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 16 6 NYCRR Subpart 201-5: Emission Unit Definition
- 17 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 18 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 19 6 NYCRR 211.2: Visible Emissions Limited
- 20 6 NYCRR 211.2: Compliance Demonstration

Emission Unit Level

- 21 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 22 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

NOTE: * preceding the condition number indicates capping.



FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

- (a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.
- (b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.



(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item F: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item G: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item H: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: Required Emission Tests - 6 NYCRR 202-1.1



An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: Open Fires Prohibitions - 6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item L: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: Federally Enforceable Requirements - 40 CFR 70.6 (b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: Exempt and Trivial Activities Applicability



Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement:6 NYCRR 201-3.1 (a)

Item 1.1:

If the facility owner and/or operator performs any of the exempt and trivial activities listed in 6 NYCRR Part 201-3.2(c) or 201-3.3(c), such activities are exempt from the permitting provisions of 6 NYCRR Part 201-5, but not from other Parts of 6 NYCRR Chapter III, or from applicable permitting requirements of local air pollution control agencies.

Condition 2: Facility Permissible Emissions

Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 2.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 007440-02-0

PTE: 18,000 pounds per year

Name: NICKEL METAL AND INSOLUBLE COMPOUNDS

Condition 3: Capping Monitoring Condition

Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 212.4 (b)

Item 3.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3.3:

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



activities. If requested, the report shall also include all emission factors and other data used in calculating the monthly nickel chip throughput.

NONCOMPLIANCE:

Any noncompliance with the nickel chip throughput limit in this condition shall be reported by sending a copy of such record to the NYSDEC Region 6, within 30 days of the occurrence.

BACKGROUND:

AERMOD modeling was performed by NYSDEC Central Office on 2/8/2013. The model considered the nine metal HAPs and hydrogen chloride that had been stack tested for on 9/18/2012. The model did suggest that the AGC for nickel would be breached in the absence of a cap. Upon consideration of three new cyclones, two new fabric filter units and two new thermal oxidizers, Central Office staff has determined that ELG Utica Alloys has provided BACT and therefore the facility has been allowed to utilize the 'factor of ten' rule, which in this case enables ELG to operate at stack test conditions, but for a limited number of hours (Central Office requested an hourly limit). See DAR-1 for the regulatory directive that allows a carcinogen's AGC to be exceeded by a factor of ten when BACT has been achieved.

The nickel chip throughput annual maximum cap of 39,838,656 lbs was determined as follows: The nickel chip throughput rate during the 2012 stack test was 5,804 lbs/hr (summation of all three kilns while operating at the maximum rate that would produce a finished chip that met ELG's laboratory specifications). The projected annual operating time was calculated to be 6,864 hrs/yr. The product of 5,804 x 6,864 = 39,838,656 lbs of nickel chips per year.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: METAL

Upper Permit Limit: 39,838,656 pounds per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

Subsequent reports are due every 12 calendar month(s).

Condition 4: Air pollution prohibited
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement:6 NYCRR 211.1

Item 4.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such



quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 5: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.4 (a)

Item 5.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001	Emission Point: KFH1E
Emission Unit: 0-KD001	Emission Point: KFH2E
Emission Unit: 0-KD001	Emission Point: KFH3E

Regulated Contaminant(s):
CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE
COMPOUNDS

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission points KFH1E, KFH2E and KFH3E are emergency release stacks for Kilns 1, 2 and 3 respectively; these emergency stacks are programmed to open if either of the two thermal oxidizers were to lose combustion. These through-roof stacks are each mounted directly above the fume hood of the associated kiln. The intent is to avoid smoke back-up into the plant. Any exhaust that is released from these three stacks is uncontrolled. If any one emergency stack were to open, then the associated kiln is programmed to immediately shut down; cooling nickel chips in that kiln will generate some additional uncontrolled emissions. Facility shall monitor and log any time period for which KFH1E, KFH2E and/or KFH3E were to be active. Every Annual Monitoring Report shall present an entry that references the status of KFH1E, KFH2E and KFH3E activity (even if none) during the applicable reporting period. These uncontrolled emissions should be considered compliant per startup, shutdown and malfunction rules because the source of the emissions (kiln) is interlocked to immediately shut down.

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 6: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.4 (a)

Item 6.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001 Emission Point: K001E

Emission Unit: 0-KD001 Emission Point: K002E

Regulated Contaminant(s):
CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE
COMPOUNDS

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Emission points K001E and K002E are emergency system-overheat release stacks for Process KD1 and KD3 respectively. The intent of these EPs is to protect the cartridge filter units from damage when the oxidizer overheats. In the event of either stack's use, the entire associated exhaust stream would be released to the atmosphere prior to the particulate removal functions of baghouse K1003 or K3003 respectively, including nine metal HAPs and hydrogen chloride PMs. This release, if it were somehow to persist for a sufficient time, could result in an AGC exceedence of nickel and other HAPs. Both Process KD1 and Process KD3 are programmed to immediately shut down the kiln (the source of emissions) if this stack were to become active. Facility shall monitor and log any time period for which K001E and/or K002E were to be active. Every Annual Monitoring Report shall present an entry that references the status of K001E and K002E activity (even if none) during the applicable reporting period. These stacks are horizontally oriented openings that are mounted on outside ductwork. These uncontrolled emissions should be considered compliant per startup, shutdown and malfunction rules because the source of the emissions (the kiln) is



interlocked to immediately shut down.

Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD - SEE MONITORING
DESCRIPTION
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 7: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.4 (a)

Item 7.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001
Process: KD1 Emission Source: K1003

Emission Unit: 0-KD001
Process: KD3 Emission Source: K3003

Regulated Contaminant(s):
CAS No: 007439-92-1 LEAD
CAS No: 007439-96-5 MANGANESE
CAS No: 007439-97-6 MERCURY
CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE

COMPOUNDS
CAS No: 007440-36-0 ANTIMONY
CAS No: 007440-43-9 CADMIUM
CAS No: 007440-47-3 CHROMIUM
CAS No: 007440-48-4 COBALT
CAS No: 007647-01-0 HYDROGEN CHLORIDE
CAS No: 007782-49-2 SELENIUM
CAS No: 0NY075-00-0 PARTICULATES

Item 7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Facility shall ensure that AGCs of the referenced HAP particulates are not exceeded by providing effective cartridge filter maintenance that is in accord with the manufacturer's specifications and/or empirical history. Cartridge filter units shall be operated within the referenced pressure drop parameters while the associated kiln is in operation. Manometer readings below 1" WC and



above 6" WC shall require immediate root cause analysis and then expedient corrective action. Manometers shall be monitored and recorded once per week while the cartridge filter units are in operation. This record and all other cartridge filter maintenance records shall be kept for a minimum period of five years.

Parameter Monitored: PRESSURE DROP
Lower Permit Limit: 1 inches of water
Upper Permit Limit: 6 inches of water
Monitoring Frequency: CONTINUOUS
Averaging Method: RANGE-NOT TO FALL OUTSIDE OF STATED RANGE EXCEPT DURING STARTUP/SHUTDOWN
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 8: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.4 (c)

Item 8.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001 Emission Point: K0001

Emission Unit: 0-KD001 Emission Point: K0002

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 8.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Emissions of solid particles are limited to less than 0.04 grains of particulates per cubic foot of exhaust gas, expressed at standard conditions and on a dry gas basis.

Performance testing (EPA RM 5) is the only true method to prove compliance with this standard and shall be conducted at the discretion of the Department.

In the absence of a formal stack test, facility shall attest to compliance by visually monitoring and recording the appearance (density) of the exhaust plume from each

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



involved emission point. These observations shall be recorded in a log book which shall be submitted annually and shall be retained for a five year period.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.04 grains per dscf
Reference Test Method: EPA Reference Method 5
Monitoring Frequency: DAILY
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 9: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.6 (a)

Item 9.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001	Emission Point: K0001
Emission Unit: 0-KD001	Emission Point: K0002

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 9.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall cause or allow emissions to the outdoor atmosphere having an average opacity of 20% or greater for any consecutive six-minute period from any process emission source subject to 6 NYCRR 201.

EPA Reference Method 9 is the only formal determinate of opacity compliance and the Department reserves the right to perform or require the performance of a RM9.

In the absence of a formal RM 9, facility shall attest to opacity compliance by visually monitoring and recording the magnitude of optical density of the exhaust plume from each referenced emission point. This observation shall be made once per day and while the source is operating. The observer shall not consider that portion of the plume that is water vapor. These observations shall be recorded in a

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



log book which shall be submitted annually and shall be retained for a five year period.

If dense emissions (any that are greater than "clear" or "very minimal") are observed for two consecutive days, then facility shall:

- 1) Immediately investigate the root cause and take appropriate corrective action.
- 2) Conduct a certified EPA Reference Method 9 visible emission test
- 3) Notify the NYSDEC, Division of Air Resources, Region 6
- 4) If the Method 9 test determines that the opacity is less than 20%, then an appropriate log entry of "very minimal" shall be recorded.
- 5) If the RM9 certified observer detects opacity greater than 20%, then facility shall make such an entry in the log.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA RM 9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

Subsequent reports are due every 12 calendar month(s).

Condition 10: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.11 (b) (1)

Item 10.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 0-KD001

Process: KD3

Emission Source: K3002

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 10.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Monitoring Description:

In order to ensure that the VOC destruction efficiency of the thermal oxidizer will meet the criteria of 6 NYCRR 212.10(c)(4), the oxidizer outlet temperature shall not fall below 1,250 degrees Fahrenheit. This temperature shall be continuously monitored and recorded whenever the associated kiln is processing chips. The source of this VOC is from residual machine tool coolants that arrive on turnings. The 1,250 degree limitation was determined during a 9/18/12 stack test on oxidizer for Kiln #3. Otherwise, facility is required to maintain the operational capability of this oxidizer and the facility shall log maintenance records for a minimum five-year period.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1,250 degrees Fahrenheit

Reference Test Method: EPA Reference Method 25A

Monitoring Frequency: CONTINUOUS

Averaging Method: Minimum-not to fall below average parameter value determined by stack test

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

Subsequent reports are due every 12 calendar month(s).

Condition 11: Compliance Demonstration

Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 212.11 (b) (1)

Item 11.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 0-KD001

Process: KD1

Emission Source: K1002

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 11.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

In order to ensure that the VOC destruction efficiency of the thermal oxidizer will meet the criteria of 6 NYCRR 212.10(c)(4), the oxidizer outlet temperature shall not fall below 1,300 degrees Fahrenheit. This temperature



shall be continuously monitored and recorded whenever the associated kiln is processing chips. The source of this VOC is from residual machine tool coolants that arrive on turnings. The 1,300 degree limitation was determined during a 9/18/12 stack test on oxidizer for Kilns #1 and #2. Otherwise, facility is required to maintain the operational capability of this oxidizer and the facility shall log maintenance records for a minimum five-year period.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1,300 degrees Fahrenheit

Reference Test Method: EPA Reference Method 25A

Monitoring Frequency: CONTINUOUS

Averaging Method: Minimum-not to fall below average parameter value determined by stack test

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

Subsequent reports are due every 12 calendar month(s).

Condition 12: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement:6 NYCRR Part 226

Item 12.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 12.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

6NYCRR 226. Requirements for Open-top Vapor Degreasers (For non Title V)

A. Equipment Specifications

The following types of control equipment must be used when conducting open-top vapor degreasing, solvent metal cleaning:

1) A cover which can be operated easily without disturbing the vapor zone.

(2) Safety switches which shut off the sump heat if the condenser malfunctions and shall shut off the pump if the



vapor level drops excessively

(3) One of the following:

- (i) a freeboard ratio that is greater than or equal to 0.75, and a powered or mechanically assisted cover if the top opening is greater than 10 square feet;
- (ii) a refrigerated chiller; or
- (iii) local exhaust ventilation and a carbon adsorption unit, or an equivalent system, for collection of VOCs.

B. Operating Requirements:

(1) Minimize solvent carry-out by the following measures:

- (i) rack parts to allow full drainage;
- (ii) move parts in and out of degreaser tank at less than 11 ft/min;
- (iii) degrease the work load in the vapor zone at least 30 seconds or until condensation ceases;
- (iv) tip out any pools of solvent before removal; and
- (v) dry parts for at least 15 seconds before removal.

(2) Work loads shall not occupy more than half the open-top area of the degreaser tank.

(3) Spray only below the vapor level.

C. General Requirements:

A Person conducting solvent metal cleaning must:

(1) Store solvent in covered containers and transfer or dispose of waste solvent in such a manner that less than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere.

(2) Maintain equipment to minimize leaks and fugitive emissions.

(3) Display at the equipment location a conspicuous summary of proper operating procedures consistent with minimizing emissions of VOCs.

(4) Keep the degreaser cover closed except when:

(a) parts are being placed into or being removed from the degreaser;

(b) adding or removing solvent from the degreaser;

or

(c) no solvent is in the degreaser.

(5) Create and retain a record of solvent consumption for five years. This record must be made available to the Department upon request.

(6) Not clean sponges, fabric, wood, leather, paper products and other absorbent materials in a degreaser.

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

Subsequent reports are due every 12 calendar month(s).

Condition 13: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable Federal Requirement: 6 NYCRR 226.2

Item 13.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000106-88-7	ETHYL OXIRANE
CAS No: 000106-94-5	PROPANE, 1-BROMO-
CAS No: 000646-06-0	DIOXACYCLOPENTANE, 1,3-
CAS No: 0NY998-00-0	VOC

Item 13.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Facility operates two non-halogenated open-top batch vapor degreasers. One unit is subject to Part 226 due to an open top area that exceeds 11 square feet and the other is exempt per 6 NYCRR 201-3.3 (c)(39)(iv) due to an open top area that is less than 11 square feet. In 2010, the solvent in use is Techtride DG and this solvent has been modeled with DAR-1 and has been found to exhibit no SGC or AGC exceedences.

The exempt unit is an Ultra Kool "Cold Trap Plus", 18 gallon capacity, 1.5 ft².

Annually, facility shall monitor and record degreasing solvent usage. Annually, VOC and HAP emissions from solvent usage shall be calculated per current MSDS/TDS information and also reported in the Annual Monitoring Report. Both 1,3 Dioxolane and N-Propyl bromide are VOCs and ethyl oxirane is both VOC and HAP. Techtride DG is 100% VOC. Records shall be maintained for a minimum period of five years.

Monitoring Frequency: ANNUALLY

Averaging Method: ANNUAL TOTAL

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.



The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).



STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state only enforceable.

Condition 14: Contaminant List
Effective between the dates of 01/13/2014 and 01/12/2024



Applicable State Requirement:ECL 19-0301

Item 14.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000106-88-7

Name: ETHYL OXIRANE

CAS No: 000106-94-5

Name: PROPANE, 1-BROMO-

CAS No: 000646-06-0

Name: DIOXACYCLOPENTANE, 1,3-

CAS No: 007439-92-1

Name: LEAD

CAS No: 007439-96-5

Name: MANGANESE

CAS No: 007439-97-6

Name: MERCURY

CAS No: 007440-02-0

Name: NICKEL METAL AND INSOLUBLE COMPOUNDS

CAS No: 007440-36-0

Name: ANTIMONY

CAS No: 007440-43-9

Name: CADMIUM

CAS No: 007440-47-3

Name: CHROMIUM

CAS No: 007440-48-4

Name: COBALT

CAS No: 007647-01-0

Name: HYDROGEN CHLORIDE

CAS No: 007782-49-2

Name: SELENIUM

CAS No: 0NY075-00-0

Name: PARTICULATES

CAS No: 0NY998-00-0

Name: VOC



Condition 15: Malfunctions and start-up/shutdown activities
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR 201-1.4

Item 15.1:

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 16: Emission Unit Definition
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 16.1:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 0-KD001

Emission Unit Description:

This emission unit consists of kiln drying operations.

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Natural gas-fired rotary kilns are used to dry washed metal chips (nickel-based machine tool turnings).

Building(s): Main

Item 16.2:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 0-SMC01

Emission Unit Description:

This emission unit consists of solvent metal cleaning operations in a vapor degreaser, using a non-halogenated solvent. Scrap metal items are cleaned in this degreaser during the recycling process.

Building(s): Main

**Condition 17: Renewal deadlines for state facility permits
Effective between the dates of 01/13/2014 and 01/12/2024**

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 17.1:

The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Condition 18: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024**

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 18.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 18.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 6
State Office Building
317 Washington Ave.
Watertown, NY 13601

Reporting Requirements: ANNUALLY (CALENDAR)

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

Condition 19: Visible Emissions Limited
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR 211.2

Item 19.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 20: Compliance Demonstration
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR 211.2

Item 20.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-KD001

Emission Unit: 0-SMC01

Item 20.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Facility shall establish a complaint response procedure to manage complaints related to air emissions from this facility. The procedure shall be designed to ensure that complaints from officials or neighbors are adequately received and documented, and that appropriate response is taken by the facility. The facility shall:

1. Have a complaint phone line available 24 hours a day, 7 days a week.
2. Investigate any possible causes of any complaint received.
3. Take prompt action to abate any circumstance which is found to be the cause of the complaint.
4. Fully document the complaint, results of investigation, and any action taken.
5. Report in a format acceptable to the Department.

Monitoring Frequency: DAILY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

New York State Department of Environmental Conservation

Permit ID: 6-2130-00097/00001

Facility DEC ID: 6213000097



The initial report is due 1/30/2014.
Subsequent reports are due every 12 calendar month(s).

****** Emission Unit Level ******

Condition 21: Emission Point Definition By Emission Unit
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 21.1:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit:	0-KD001		
Emission Point:	K0001		
Height (ft.):	57	Diameter (in.):	14
NYTMN (km.):	4764.727	NYTME (km.):	502.846
		Building:	Main
Emission Point:	K0002		
Height (ft.):	36	Diameter (in.):	10
NYTMN (km.):	4764.695	NYTME (km.):	502.853
		Building:	Main
Emission Point:	K001E		
Height (ft.):	22	Diameter (in.):	13
NYTMN (km.):	4764.652	NYTME (km.):	502.529
		Building:	Main
Emission Point:	K002E		
Height (ft.):	14	Diameter (in.):	12
NYTMN (km.):	4764.695	NYTME (km.):	502.853
		Building:	Main
Emission Point:	KFH1E		
Height (ft.):	31	Diameter (in.):	12
NYTMN (km.):	5000.	NYTME (km.):	100.
		Building:	Main
Emission Point:	KFH2E		
Height (ft.):	31	Diameter (in.):	12
NYTMN (km.):	5000.	NYTME (km.):	100.
		Building:	Main
Emission Point:	KFH3E		
Height (ft.):	31	Diameter (in.):	12
NYTMN (km.):	5000.	NYTME (km.):	100.
		Building:	Main

Condition 22: Process Definition By Emission Unit
Effective between the dates of 01/13/2014 and 01/12/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 22.1:

This permit authorizes the following regulated processes for the cited Emission Unit:



Emission Unit: 0-KD001

Process: KD1

Source Classification Code: 3-04-010-99

Process Description:

Process KD1 consists of the operations of both Kiln #1 and of Kiln #2. Washed nickel chips (turnings) are metered into these natural gas-fired rotary kilns, where remaining machine tool coolants are oxidized and washwater is evaporated off. The exhaust from each kiln is routed directly through one dedicated cyclone (that is two cyclones total). The exhaust from these two cyclones is then joined into a single duct. This now-combined exhaust stream is fed to one a natural gas-fired thermal oxidizer (destroys VOCs from residual coolant oils), then into one heat exchanger (reduce temp to protect baghouse) and then to one fabric cartridge filter (picks up nine different metal HAP particles plus HCl particulates which originate from chlorinated coolant oils) before final atmospheric release through one stack (EP=K0001). Each kiln is equipped with burners that fire at 1 MM Btu/hr; burner exhaust is segregated from kiln airstream (vented separately).

This process has an THREE emergency exhaust-release stacks:

EP=K001E:

This stack's design is to dump the entire combined exhaust streams of Kiln #1 and Kiln #2 (in a thermal oxidizer overheat scenario) into the atmosphere immediately prior to fabric filter control. If this were to occur, nine metal HAPs plus hydrogen chloride PM would realize an uncontrolled release. The system is designed to immediately shut down Kilns #1 and #2 if such an overheat were to occur. The status of K001E activity or inactivity shall be addressed in every Annual Monitoring Report.

EP=KFH1E:

This stack's design is to dump the exhaust stream from Kiln #1 if the combustion in thermal oxidizer (Source=K1002) were to cease, in such an event, Kiln #1 is programmed to immediately shut down, a valve opens above the fume hood on Kiln #1 and then any residual kiln smoke is allowed to escape through a roof penetration duct (EP=KFH1E). The status of KFH1E activity or inactivity shall be addressed in every Annual Monitoring Report.

EP=KFH2E:

This stack's design is to dump the exhaust stream from Kiln #2 if the combustion in thermal oxidizer



(Source=K1002) were to cease, in such an event, Kiln #2 is programmed to immediately shut down, a valve opens above the fume hood on Kiln #2 and then any residual kiln smoke is allowed to escape through a roof penetration duct (EP=KFH2E). The status of KFH2E activity or inactivity shall be addressed in every Annual Monitoring Report.

Emission Source/Control: K1000 - Combustion
Design Capacity: 4,000 pounds per hour

Emission Source/Control: K2000 - Combustion
Design Capacity: 4,000 pounds per hour

Emission Source/Control: K1001 - Control
Control Type: CENTRIFUGAL

Emission Source/Control: K1002 - Control
Control Type: DIRECT FLAME AFTERBURNER WITH HEAT EXCHANGER

Emission Source/Control: K1003 - Control
Control Type: FABRIC FILTER

Emission Source/Control: K2001 - Control
Control Type: CENTRIFUGAL

Item 22.2:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-KD001

Process: KD3

Source Classification Code: 3-04-010-99

Process Description:

Process KD3 consists of the operation of one kiln line, known as Kiln #3. Washed nickel chips (turnings) are metered into a natural gas-fired rotary kiln (Kiln #3), where remaining machine tool coolants are oxidized and washwater is dried off. The kiln exhaust is routed through one cyclone, then through one heat recuperator (uses kiln exhaust heat to pre-heat oxidizer intake combustion air), then through one a natural gas-fired thermal oxidizer (destroys VOCs from residual coolant oils), then through one heat exchanger (reduce temp to protect baghouse, dumps this heat into atmosphere) and then through one fabric cartridge filter (picks up nine different metal HAP particles plus HCl particles which form from chlorinated coolant oils) before final atmospheric release through a stack (EP=K0002). The kiln burners total at 1 MMBtu/hr; burner exhaust is segregated from kiln airstream.

This process has an TWO emergency exhaust-release stacks:



EP=K002E:

This stack's design is to dump the entire exhaust stream of Kiln #3 (in a thermal oxidizer overheat scenario) into the atmosphere immediately prior to fabric filter control. If this were to occur, nine metal HAPs plus hydrogen chloride PM would realize an uncontrolled release. The system is designed to immediately shut down Kiln #3 if such an overheat were to occur. The status of K002E activity or inactivity shall be addressed in every Annual Monitoring Report.

EP=KFH3E:

This stack's design is to dump the exhaust stream from Kiln #3 if the combustion in thermal oxidizer (Source=K3002) were to cease, in such an event, Kiln #3 is programmed to immediately shut down, a valve opens above the fume hood on Kiln #3 and then any residual kiln smoke is allowed to escape through a roof penetration duct (EP=KFH3E). The status of KFH3E activity or inactivity shall be addressed in every Annual Monitoring Report.

Emission Source/Control: K3000 - Combustion
Design Capacity: 4,000 pounds per hour

Emission Source/Control: K3001 - Control
Control Type: CENTRIFUGAL

Emission Source/Control: K3002 - Control
Control Type: DIRECT FLAME AFTERBURNER WITH HEAT EXCHANGER

Emission Source/Control: K3003 - Control
Control Type: FABRIC FILTER

Item 22.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-SMC01

Process: VD1

Source Classification Code: 4-01-002-15

Process Description:

This process consists of batch vapor degreasing operations in two vapor degreasing machines. Degreasing is performed in a unit that has an open-top area that exceeds 11 square feet and therefore it is subject to 6 NYCRR 226. Facility also operates an exempt [per 6 NYCRR 201-3.2(c)(39)(iv)] vapor degreaser with an open-top surface area that is less than 11 square feet (Ultra Kool "Cold Trap Plus", 18 gallon capacity, 1.5 sq ft). As both units use a non-halogenated solvent, this process is not subject to 40 CFR 63 Subpart T. There is no emission point for this process.



Emission Source/Control: VD001 - Process

