INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

To: Interested Parties

Date: July 1, 2024

From: Jenny Acker, Chief
Permits Branch
Office of Air Quality

Source Name: Kennametal Stellite LP

Permit Level: Registration Revision

Permit Number: 039-47548-00078

Source Location: 1201 Eisenhower Dr. N, Goshen, IN 46526

Type of Action Taken: Revisions to permit requirements

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, choose Search Option **by Permit Number**, then enter permit 47548. This search will also provide the application received date and **final** permit issuance date.

The final decision is also available via IDEM's Virtual File Cabinet (VFC). Please go to: https://www.IN.gov/idem and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

(continues on next page)

If you would like to request a paper copy of the permit document, please contact IDEM's Office of Records Management:

IDEM - Office of Records Management
Indiana Government Center North, Room 1207
100 North Senate Avenue
Indianapolis, IN 46204
Phone: (317) 232-8667
Fax: (317) 233-6647
Email: IDEMFILEROOM@idem.in.gov

Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Indiana Office of Administrative Law Proceedings, 100 N. Senate Avenue Suite N802, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Indiana Office of Administrative Law Proceedings (OALP); or
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OALP by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OALP by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

July 1, 2024

Randy Porter
Kennametal Stellite LP
1201 Eisenhower Drive North
Goshen, IN 46526

Re: 039-47548-00078
Revision to
Registration No. R039-14366-00078

Dear Randy Porter:

Kennametal Stellite LP was issued a Registration No. R039-14366-00078 on August 7, 2001 for a stationary metal powder manufacturing facility located at 1201 Eisenhower Dr. N, Goshen, IN 46526. On February 20, 2024, the Office of Air Quality (OAQ) received an application from the source requesting to add six (6) Air Melt Atomization Tower burners, one (1) rod/wire casting process heating torch, one (1) natural gas furnace for sintering, and one (1) dust collector on the Linishing line exhausting to Baghouse DC5. Pursuant to the provisions of 326 IAC 2-5.5-6(g), a Registration Revision is hereby approved as described in the attached Technical Support Document.

The source shall continue to operate according to 326 IAC 2-5.5 (Registrations). All other conditions of the registration shall remain unchanged and in effect. Please find attached the entire registration as revised. The registration references the below listed attachment(s). Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this revision:

Attachment A: 40 CFR 60, Subpart IIII, NSPS Stationary Compression Ignition Internal Combustion Engines
Attachment B: 40 CFR 63, Subpart ZZZZ, NESHAP Stationary Reciprocating Internal Combustion Engines

Previously issued approvals for this source containing these attachments are available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

Previously issued approvals for this source are also available via IDEM's Virtual File Cabinet (VFC). To access VFC, please go to: https://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the registration is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. A copy of the application and registration is also available via IDEM's Virtual File Cabinet (VFC). To access VFC, please go to: https://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: https://www.in.gov/idem/airpermit/public-participation/; and the Citizens' Guide to IDEM on the Internet at: https://www.in.gov/idem/resources/citizens-guide-to-idem/.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions regarding this matter, please contact Sarah Germann, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 234-6555 or (800) 451-6027, and ask for Sarah Germann or (317) 234-6555.

Sincerely,

Heath Hartley, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Revised Registration and Technical Support Document

cc: File - Elkhart County
Elkhart County Health Department
Compliance and Enforcement Branch
IDEM Northern Regional Office

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Commissioner

REGISTRATION
OFFICE OF AIR QUALITY

Kennametal Stellite LP
1201 Eisenhower Dr N
Goshen, Indiana 46526

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. R039-14366-00078 Master Agency Interest ID.: 11625	
Issued by: Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: August 7, 2001

Registration Revision No. 039-15682-00078, issued on February 3, 2003
Notice-Only Change No. 039-23709-00078, issued on October 24, 2006
Notice-Only Change No. 039-25404-00078, issued on October 31, 2007
Notice-Only Change No. 039-29603-00078, issued on December 29, 2010
Notice-Only Change No. 039-31339-00078, issued on February 8, 2012
Administrative Amendment No. 039-33899-00078, issued on February 4, 2014
Administrative Amendment No.039-35083-00078, issued on January 9, 2015
Administrative Amendment No.039-36424-00078, issued on November 23, 2015
Administrative Amendment No. 039-39438-00078, issued on January 30, 2018
Administrative Amendment No. 039-40090-00078, issued on July 17, 2018
Administrative Amendment No.039-46685-00078, issued on August 9, 2023

Registration Revision No.039-47548-00078	
Issued by: Heath Hartley, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 1, 2024

SECTION A SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary metal powder manufacturing facility.

Source Address:	1201 Eisenhower Dr N, Goshen, Indiana 46526
General Source Phone Number:	(574) 534-2585
SIC Code:	3369 (Nonferrous Foundries, Except Aluminum and Copper)
County Location:	Elkhart County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) Air Melt Atomization Towers furnaces, each equipped with a product cyclone that is considered integral to the process, and with two (2) fume hoods, located over the furnaces in the atomization towers, constructed in 2006, controlled by baghouse DC2-1, as follows:

Construction year	Maximum Capacity (pounds/hour)	Baghouse ID
1990	800	DC1
2007	800	DC3

(b) Six (6) Air Melt Atomization Tower natural gas-fired burners, permitted in 2024 with a maximum capacity of 0.25 MMBTU/hr, each, using no controls. The burners are used to heat up the tundish and keep molten alloy poured into the tundish from solidifying on the surface of the tundish.

(c) One (1) Cobalt classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC4.

(d) One (1) Iron/Nickel classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC5.

(e) One (1) castable rework operation, constructed in 1990, approved in 2014 for modification, with a maximum process rate of less than 100 pounds per hour, controlled by Baghouse DC7.

(f) One (1) Rod/Wire Casting fume hood, approved for construction in 2010, with a maximum process rate of less than 100 pounds per hour, controlled by fume hood/Baghouse DC9.

(g) One (1) Rod/Wire Casting process natural gas-fired heating torch, installed in 2011, and permitted in 2024, with a maximum capacity of 0.325 MMBTU/hr, using no controls. This

heating torch keeps the ladle hot enough to prevent molten metal from solidifying to the surface of the ladle.

(h) One (1) welding powder coating spray booth, identified as Booth A, constructed in 2002, using a maximum usage of 20 pounds per hour and a maximum throughput rate of 24 pounds of parts per hour, controlled by Baghouse DC8. This booth is located in the Research and Development Laboratory and is used only for experimental study and testing for welding torches.

(i) One (1) general ventilation baghouse, identified as DC-10, permitted in 2015, for ambient room dust collection and increased airflow, and exhausting within the building.

(j) Two (2) general ventilation dust collectors, identified as DC-11 and DC2, permitted in 2018, for ambient room dust collection and increased airflow, and exhausting within the building.

(k) One (1) linishing equipment line, constructed in 2012 and permitted in 2024, with a maximum throughput of 50 lb/hr, controlled by a dust collector identified as DC12, discharging to Baghouse DC5.

(l) One (1) emergency diesel generator, identified as Gen1, permitted in 2023, with heat input capacity of 1.47 MMBtu/hr and a power output of 223 hp, using no controls, and exhausting to Stk1.

Under 40 CFR 60, Subpart IIII, this unit is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, this unit is considered an affected new facility.

(m) One (1) Secondary Metal Production natural gas fired furnace at the sintering station, installed in 2011, and permitted in 2024, with a maximum capacity of 6.0 MMBTU/hr, using no controls, and venting to DC-10. This unit heats the refractory of the caster to remove residual moisture prior to the addition of molten metal to the process.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration R039-14366-00078 is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this registration.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.

(d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to Registration No. 039-14366-00078 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)][326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Registrant's control, the PMPs cannot be prepared and maintained within the above time frame, the Registrant may extend the date an additional ninety (90) days provided the Registrant notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Registrant shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Registrant to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(c) To the extent the Registrant is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such OMM Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)][326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this registration:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

Corrective Actions and Response Steps

C.3 Response to Excursions or Exceedances [326 IAC 2-5.1-3(e)(2)]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this registration:

(a) The Registrant shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Registrant has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the registration.

(e) The Registrant shall record the reasonable response steps taken.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)]

C.4 General Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)]

(a) Records of all required monitoring data, reports and support information required by this registration shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Registrant, the Registrant shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this registration, for all record keeping requirements not already legally required, the Registrant shall be allowed up to ninety (90) days from the date of registration issuance or the date of initial start-up, whichever is later, to begin such record keeping.

SECTION D.1 EMISSION UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)][326 IAC 2-5.5-4(a)(2)]:

(a) Air Melt Atomization Towers furnaces, each equipped with a product cyclone that is considered integral to the process, and with two (2) fume hoods, located over the furnaces in the atomization towers, constructed in 2006, controlled by baghouse DC2-1, as follows:

Construction year	Maximum Capacity (pounds/hour)	Baghouse ID
1990	800	DC1
2007	800	DC3

(b) One (1) Cobalt classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC4.

(c) One (1) Iron/Nickel classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC5.

(d) One (1) castable rework operation, constructed in 1990, approved in 2014 for modification, with a maximum process rate of less than 100 pounds per hour, controlled by Baghouse DC7.

(e) One (1) Rod/Wire Casting fume hood, approved for construction in 2010, with a maximum process rate of less than 100 pounds per hour, controlled by fume hood/Baghouse DC9.

(f) One (1) welding powder coating spray booth, identified as Booth A, constructed in 2002, using a maximum usage of 20 pounds per hour and a maximum throughput rate of 24 pounds of parts per hour, controlled by Baghouse.DC8. This booth is located in the Research and Development Laboratory and is used only for experimental study and testing for welding torches.

(g) One (1) general ventilation baghouse, identified as DC-10, permitted in 2015, for ambient room dust collection and increased airflow, and exhausting within the building.

(h) One (1) linishing equipment line, constructed in 2012 and permitted in 2024, with a maximum throughput of 50 lb/hr, controlled by a dust collector identified as DC12, discharging to Baghouse DC5.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)][326 IAC 2-5.5-4(a)(1)]

D.1.1 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the processes listed in the table below shall not exceed the following:

Emission Unit	Process Weight Rate (lbs/hr)	Allowable PM Limit (lbs/hr)
two (2) air melt atomization towers/DC1 and DC3	800, each	2.22, each
cobalt classifying operation/DC4	975	2.53
iron/nickel classifying operation/DC5	975	2.53
Linishing Line	50	0.35

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions from the fume hood, the castable rework, and the Rod/Wire Casting fume hood, and the welding powder spray coating booth (Booth A) shall not exceed 0.551 lbs/hr each.

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and any associated control devices. Section B - Preventive Maintenance Plan contains the Registrant's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)][326 IAC 2-5.5-4(b)]

D.1.3 Cyclone Operations

In order to assure compliance with Condition D.1.1(a), the product cyclones associated with both air melt atomization towers must be in operation when the towers are in operation, as they are considered integral part of the process.

D.1.4 Baghouse Operations

In order to assure compliance with Condition D.1.1(b), the baghouses shall be in operation and control emissions from the associated processes at all times when these processes are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-2(g)][326 IAC 2-5.5-4(b)]

D.1.5 Cyclone Inspection

An inspection shall be performed each calendar quarter of all cyclones controlling the two (2) air melt atomization towers, when exhausting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.6 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immmediately until the failed units have been repaired or replaced. Failure to take response steps shall be considered a deviation from this permit

Record Keeping and Reporting Requirements [326 IAC 2-5.1-2(g)][326 IAC 2-5.5-4(b)]

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.3, the Permittee shall maintain records of the inspections required under Condition D.1.5.

(b) Section C - General Record Keeping Requirements contains the Registrant's obligations with regard to the records required by this condition.

SECTION E.1 **NSPS**

Emission Unit Description:

(a) One (1) emergency diesel generator, identified as Gen1, permitted in 2023, with a heat input capacity of 1.47 MMBtu/hr and a power output of 223 hp, using no controls, and exhausting to Stk1.

Under 40 CFR 60, Subpart IIII, this unit is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, this unit is considered an affected new facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Registrant shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.4, the Registrant shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.1.2 Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12][40 CFR Part 60, Subpart IIII]

The Registrant shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment A to the registration), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

(1) 40 CFR 60.4200(a)(2)(i), (a)(4), and (c)
(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208(a)
(6) 40 CFR 60.4209(a)
(7) 40 CFR 60.4211(a), (c), (f), and (g)(2)
(8) 40 CFR 60.4214(b), and (d)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 5 to 40 CFR 60, Subpart IIII

(12) Table 8 to 40 CFR 60, Subpart IIII

SECTION E.2 NESHAP

Emission Unit Description:

(a) One (1) emergency diesel generator, identified as Gen1, permitted in 2023, with a heat input capacity of 1.47 MMBtu/hr and a power output of 223 hp, using no controls, and exhausting to Stk1.

Under 40 CFR 60, Subpart IIII, this unit is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, this unit is considered an affected new facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 the Registrant shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Registrant shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.2.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Registrant shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment B to the registration), which are incorporated by reference as 326 IAC 20-82, for the emission unit(s) listed above:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
(4) 40 CFR 63.6595(a)(7)
(5) 40 CFR 63.6665
(6) 40 CFR 63.6670
(7) 40 CFR 63.6675

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

REGISTRATION
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Kennametal Stellite LP
Address:	1201 Eisenhower Dr N
City:	Goshen, Indiana 46526
Phone Number:	(574) 534-2585
Registration No.:	039-14366-00078

I hereby certify that Kennametal Stellite LP is:
- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that Kennametal Stellite LP is:
- ☐ in compliance with the requirements of Registration No. 039-14366-00078.
- ☐ not in compliance with the requirements of Registration No. 039-14366-00078.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Revision

Source Description and Location

Source Name:	**Kennametal Stellite LP**
Source Location:	**1201 Eisenhower Dr. N, Goshen, IN 46526**
County:	**Elkhart (Elkhart Township)**
SIC Code:	**3369 (Nonferrous Foundries, Except Aluminum and Copper)**
Registration No.:	**R 039-14366-00078**
Registration Issuance Date:	**August 7, 2001**
Registration Revision No.:	**039-47548-00078**
Permit Reviewer:	**Sarah Germann**

On February 20, 2024, the Office of Air Quality (OAQ) received an application from Kennametal Stellite LP related to changes at an existing stationary metal powder manufacturing facility.

Existing Approvals

The source was issued Registration No. 039-14366-00078 on August 7, 2001. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Registration Revision	039-15682-00078	February 3, 2003
Registration NOC	039-23709-00078	October 24, 2006
Registration NOC	039-25404-00078	October 30, 2007
Registration NOC	039-29603-00078	December 29, 2010
Registration NOC	039-31339-00078	February 8, 2012
Registration AA	039-33899-00078	February 4, 2014
Registration AA	039-35083-00078	January 9, 2015
Registration AA	039-36424-00078	November 23, 2015
Registration AA	039-39438-00078	January 30, 2018
Registration AA	039-40090-00078	July 17, 2018
Registration AA	039-46685-00078	August 9, 2023

County Attainment Status

The source is located in Elkhart County.

Pursuant to amendments to Indiana Code IC 13-17-3-14, effective July 1, 2023, a federal regulation that classifies or amends a designation of attainment, nonattainment, or unclassifiable for any area in Indiana under the federal Clean Air Act is effective and enforceable in Indiana on the effective date of the federal regulation.

Pollutant	Designation
SO_2	Unclassifiable or attainment effective April 9, 2018, for the 2010 primary 1-hour SO_2 standard. Better than national secondary standards effective March 3, 1978.
CO	Unclassifiable or attainment effective November 15, 1990.

Pollutant	Designation
O_3	Unclassifiable or attainment effective August 3, 2018, for the 2015 8-hour ozone standard.
$PM_{2.5}$	Unclassifiable or attainment effective April 15, 2015, for the 2012 annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Unclassifiable or attainment effective January 29, 2012, for the 2010 NO_2 standard.
Pb	Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Elkhart County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Elkhart County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of regulated air pollutants and hazardous air pollutants (HAP) are counted toward the determination of Registration (326 IAC 2-5.1-5) applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

This table reflects the unrestricted potential emissions of the source prior to the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	Unrestricted Source-Wide Emissions Prior to Revision (tons/year)								
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single HAP[3]**	**Total HAPs**
Total PTE of Entire Source Including Source-Wide Fugitives	14.18	8.43	8.43	0.11	1.73	0.14	0.37	6.51	11.55
Exemptions Levels	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 10	< 25
Registration Levels	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 10	< 25

[1]Under the Part 70 Permit program (40 CFR 70), PM_{10} and $PM_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."

[2]$PM_{2.5}$ listed is direct $PM_{2.5}$.

[3]Single highest source-wide HAP.

These emissions are based on the TSD of Registration Administrative Amendment No. 039-46685-00078, issued on August 9, 2023.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Kennametal Stellite LP on February 20, 2024, relating to the addition of six (6) Air Melt Atomization Tower burners, one (1) rod/wire casting process heating torch, one (1) natural gas furnace for sintering, and one (1) dust collector on the Linishing line exhausting to Baghouse DC5.

The following is a list of the new and modified emission units and pollution control device(s):

(a) Six (6) Air Melt Atomization Tower natural gas-fired burners, permitted in 2024 with a maximum capacity of 0.25 MMBTU/hr, each, using no controls. The burners are used to heat up the tundish and keep molten alloy poured into the tundish from solidifying on the surface of the tundish.

(b) One (1) Rod/Wire Casting process natural gas-fired heating torch, installed in 2011, and permitted in 2024, with a maximum capacity of 0.325 MMBTU/hr, using no controls. This heating torch keeps the ladle hot enough to prevent molten metal from solidifying to the surface of the ladle.

(c) One (1) Secondary Metal Production natural gas fired furnace at the sintering station, installed in 2011, and permitted in 2024, with a maximum capacity of 6.0 MMBTU/hr, using no controls, and venting to DC-10. This unit heats the refractory of the caster to remove residual moisture prior to the addition of molten metal to the process.

The following emission units were constructed and/or operated without a registration revision:

(a) One (1) linishing equipment line, constructed in 2012 and permitted in 2024, with a maximum throughput of 50 lb/hr, controlled by a dust collector identified as DC12, discharging to Baghouse DC5.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of a registration. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the registration rules.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Registration Revision

The following table is used to determine the appropriate revision level under 326 IAC 2-5.5-6. This table reflects the PTE before controls of the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	PTE Before Controls of the New Emission Units (ton/year)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$[1]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single HAP[2]**	**Total HAPs**
Casting process heating torch	negl.	0.01	0.01	negl.	0.14	0.01	0.12	negl.	negl.
Six (6) Thermal Jets (tower burners)	negl.	0.01	0.01	negl.	0.11	0.01	0.09	negl.	negl.
Sintering Station furnace	0.05	0.20	0.20	0.02	2.58	0.14	2.16	negl.	negl.
Linishing Line (Dust Collector DC12)	5.48	0.55	0.055	-	-	-	-	1.96	3.96
Total PTE Before Controls of the New Emission Units:	**5.53**	**0.76**	**0.76**	**0.02**	**2.82**	**0.16**	**2.37**	**1.96 (Cobalt)**	**4.02**

[1]$PM_{2.5}$ listed is direct $PM_{2.5}$.
[2]Single highest HAP.

Appendix A of this TSD reflects the detailed potential emissions of the proposed revision.

This Registration is being revised through a Registration Revision pursuant to 326 IAC 2-5.5-6(g), because the revision involves the construction or modification of emission units not described under 326 IAC 2-1.1-3(e)(1) through 326 IAC 2-1.1-3(e)(31).

PTE of the Entire Source After Issuance of the Registration Revision

The table below summarizes the after issuance source-wide unrestricted potential to emit. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	Unrestricted Source-Wide Emissions After Issuance (ton/year) (tons/year)c								
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_x**	**VOC**	**CO**	**Single HAP[3]**	**Total HAPs**
Total PTE of Entire Source Including Source-Wide Fugitives	19.71	9.19	9.19	0.13	4.55	0.30	2.74	7.47	15.57
Exemptions Levels	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 10	< 25
Registration Levels	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 10	< 25

[1]Under the Part 70 Permit program (40 CFR 70), PM_{10} and $PM_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."
[2]$PM_{2.5}$ listed is direct $PM_{2.5}$.
[3]Single highest source-wide HAP.

(a) This proposed revision will not change the registration status of the source, because the source-wide uncontrolled/unlimited potential to emit of PM, PM10, PM2.5, SO2, NOx, VOC, and CO will each still be within the ranges listed in 326 IAC 2-5.5-1(b)(1) and the potential to emit of all other regulated air pollutants will each still be less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source will still be subject to the provisions of 326 IAC 2-5.5 (Registrations).

(b) This proposed revision will not change the registration status of the source, because the source-wide uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the uncontrolled/unlimited potential to emit of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5 (Registrations). This source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability Determination

Due to this proposed revision, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the registration.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in the registration.

Compliance Assurance Monitoring (CAM):

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the registration, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability - Entire Source

Due to this proposed revision, state rule applicability has been reviewed as follows:

326 IAC 2-5.5 (Registrations)
Registration applicability is discussed under the PTE of the Entire Source After Issuance of the Registration Revision section of this document.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The new and modified emission unit(s) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70), it is not located in Lake or Porter County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this registrant:

(1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not subject to the requirements of 326 IAC 6-5, because the source has potential fugitive particulate emissions of less than twenty-five (25) tons per year.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Elkhart County) is not subject to the requirements of 326 IAC 6.5, because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Elkhart County) is not subject to the requirements of 326 IAC 6.8, because it is not located in Lake County.

State Rule Applicability – Individual Facilities

Due to this proposed revision, state rule applicability has been reviewed as follows:

Natural Gas Combustion
1) Tower burners
2) Casting Process heating torch
3) Sintering Station furnace

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the natural gas combustion units added with this permitting action are not subject to the requirements of 326 IAC 6-3, since they each emit less than 0.551 pounds of particulate matter per hour.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
These emission units are not subject to 326 IAC 326 IAC 7-1.1, because they have a potential to emit sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, the natural gas combustion units added with this permitting action were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6, because the unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 9-1 (Carbon Monoxide Emission Limits)
The requirements of 326 IAC 9-1 do not apply to the natural gas combustion units added with this permitting action, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)
The requirements of 326 IAC 10-3 do not apply to the natural gas combustion units added with this permitting action, since these unit are not a blast furnace gas-fired boiler, a Portland cement kiln, or a facility specifically listed under 326 IAC 10-3-1(a)(2).

Linishing Line

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the Linishing Line, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the linishing line shall not exceed 0.346 pounds per hour when operating at a process weight rate of 0.025 tons per hour. The pound per hour limitation was calculated with the following equation:

> Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:
>
> $E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
> P = process weight rate in tons per hour
>
> The control equipment shall be in operation at all times the linishing line is in operation, in order to comply with this limit.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

(1) The addition of six (6) Air Melt Atomization Tower burners, used to heat the tundish and keep molten alloy from solidifying.

(2) The addition of one (1) rod/wire casting process heating torch, used to keep the ladle in the casting process hot enough to prevent molten metal from solidifying.

(3) The addition of a furnace at the sintering station, used to heat the refractory of the caster, to remove residual moisture prior to introducing molten metal in the process.

(4) The addition of dust collector DC12 at the linishing equipment line, rerouting discharge from within the building to existing baghouse DC5.

Additional Changes

Upon further review, IDEM, OAQ has decided to make the following changes to the registration. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

(1) Minor language and title updates in the B and D Sections.

***

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) Air Melt Atomization Towers furnaces, each equipped with a product cyclone that is considered integral to the process, and with two (2) fume hoods, located over the furnaces in the atomization towers, constructed in 2006, controlled by baghouse DC2-1, as follows:

Construction year	Maximum Capacity (pounds/hour)	Baghouse ID
1990	800	DC1
2007	800	DC3

(b) Six (6) Air Melt Atomization Tower natural gas-fired burners, permitted in 2024 with a maximum capacity of 0.25 MMBTU/hr, each, using no controls. The burners are used to heat up the tundish and keep molten alloy poured into the tundish from solidifying on the surface of the tundish.

(~~b~~**c**) One (1) Cobalt classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC4.

(~~c~~**d**) One (1) Iron/Nickel classifying operation, constructed in 1990, approved in 2018 for modification, with a maximum process rate of 975 pounds of metal per hour, controlled by Baghouse DC5.

(~~d~~**e**) One (1) castable rework operation, constructed in 1990, approved in 2014 for modification, with a maximum process rate of less than 100 pounds per hour, controlled by Baghouse DC7.

(~~e~~**f**) One (1) Rod/Wire Casting fume hood, approved for construction in 2010, with a maximum process rate of less than 100 pounds per hour, controlled by fume hood/Baghouse DC9.

(g) One (1) Rod/Wire Casting process natural gas-fired heating torch, installed in 2011, and permitted in 2024, with a maximum capacity of 0.325 MMBTU/hr, using no controls. This heating torch keeps the ladle hot enough to prevent molten metal from solidifying to the surface of the ladle.

(~~f~~**h**) One (1) welding powder coating spray booth, identified as Booth A, constructed in 2002, using a maximum usage of 20 pounds per hour and a maximum throughput rate of 24 pounds of parts per hour, controlled by Baghouse DC8. This booth is located in the Research and Development Laboratory and is used only for experimental study and testing for welding torches.

(~~g~~**i**) One (1) general ventilation baghouse, identified as DC-10, permitted in 2015, for ambient room dust collection and increased airflow, and exhausting within the building.

(~~h~~**j**) Two (2) general ventilation dust collectors, identified as DC-11 and DC2, permitted in 2018, for ambient room dust collection and increased airflow, and exhausting within the building.

(k) One (1) linishing equipment line, constructed in 2012 and permitted in 2024, with a maximum throughput of 50 lb/hr, controlled by a dust collector identified as DC12, discharging to Baghouse DC5.

(~~i~~**l**) One (1) emergency diesel generator, identified as Gen1, permitted in 2023, with heat input capacity of 1.47 MMBtu/hr and a power output of 223 hp, using no controls, and exhausting to Stk1.

Under 40 CFR 60, Subpart IIII, this unit is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, this unit is considered an affected new facility.

(m) One (1) Secondary Metal Production natural gas fired furnace at the sintering station, installed in 2011, and permitted in 2024, with a maximum capacity of 6.0 MMBTU/hr, using no controls, and venting to DC-10. This unit heats the refractory of the caster to remove residual moisture prior to the addition of molten metal to the process.

***

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration **R039-14366-00078** is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

***

SECTION D.1 **EMISSION UNIT** OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)][326 IAC 2-5.5-4(a)(2)]:
***

(h) One (1) linishing equipment line, constructed in 2012 and permitted in 2024, with a maximum throughput of 50 lb/hr, controlled by a dust collector identified as DC12, discharging to Baghouse DC5.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)][326 IAC 2-5.5-4(a)(1)]

D.1.1 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the processes listed in the table below shall not exceed the following:

Emission Unit	Process Weight Rate (lbs/hr)	Allowable PM Limit (lbs/hr)
two (2) air melt atomization towers/DC1 and DC3	800, each	2.22, each
cobalt classifying operation/DC4	975	2.53
iron/nickel classifying operation/DC5	975	2.53
Linishing Line	**50**	**0.35**

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per

hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions from the fume hood, the castable rework, and the Rod/Wire Casting fume hood, and the welding powder spray coating booth (Booth A) shall not exceed 0.551 lbs/hr each.

***

D.1.4 Baghouse Operations

In order to assure compliance with Condition D.1.1(b), the baghouses shall be in operation **and control emissions from the associated processes at all times** when the**se** processes are in operation.

***

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on February 20, 2024.

The construction and operation of this proposed revision shall be subject to the conditions of the attached Registration Revision No. 039-47548-00078. The staff recommends to the Commissioner that the Registration Revision be approved.

IDEM Contact

(a) If you have any questions regarding this permit, please contact Sarah Germann, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 234-6555 or (800) 451-6027, and ask for Sarah Germann or (317) 234-6555.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: https://www.in.gov/idem/airpermit/public-participation/; and the Citizens' Guide to IDEM on the Internet at: https://www.in.gov/idem/resources/citizens-guide-to-idem/.

Appendix A: Emissions Calculations
PTE Summary

Company Name: Kennametal Stellite LP
Address City IN Zip: 1201 Eisenhower Dr N, Goshen, IN 46526
Administrative Amendment Number: 039-47548-00078
Reviewer: Sarah Germann

	Uncontrolled Potential to Emit (tons/yr)							
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Single Highest HAP (Chromium)**
Powder coating Booth A	7.67	7.67	7.67	-	-	-	-	5.40
Dust Collectors	11.87	1.19	1.19	-	-	-	-	2.07
Emergency Generator	0.12	0.12	0.12	0.11	1.73	0.14	0.37	-
Casting process heating torch	2.65E-03	0.01	0.01	8.37E-04	0.14	0.01	0.12	1.95E-06
Six (6) Thermal Jets (tower burners)	2.04E-03	0.01	0.01	6.44E-04	0.11	0.01	0.09	1.50E-06
Sintering Station funace	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3.61E-05
Total	**19.71**	**9.19**	**9.19**	**0.13**	**4.55**	**0.30**	**2.74**	**7.47**

** PM2.5 listed is direct PM2.5*

Appendix A: Emission Calculations
PTE Summary

Company Name: **Kennametal Stellite LP**
Source Address: **1201 Eisenhower Dr N, Goshen, IN 46526**
Permit Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Uncontrolled Potential to Emit HAPs (ton/year)							
Pollutant/Emission Unit	Spray Booth A*	Dust Collectors	Emergency Generator	Casting process heating torch	Six (6) Thermal Jets (tower burners)	Sintering Station furnace	Total Each HAP
Acetaldehyde	--	--	2.99E-04	--	--	--	2.99E-04
Acrolein	--	--	3.61E-05	--	--	--	3.61E-05
Benzene	--	--	3.64E-04	2.93E-06	2.25E-06	5.41E-05	4.23E-04
1,3-Butadiene	--	--	1.53E-05	--	--	--	1.53E-05
Cadmium	--	--	--	1.54E-06	1.18E-06	2.83E-05	3.11E-05
Chromium	5.40	2.07	--	1.95382E-06	1.50E-06	3.61E-05	7.47E+00
Cobalt	0.77	4.25	--	--	--	--	5.02E+00
Dichlorobenzene	--	--	--	1.67E-06	1.29E-06	3.09E-05	3.39E-05
Formaldehyde	--	--	4.60E-04	1.05E-04	8.05E-05	1.93E-03	2.58E-03
Hexane	--	--	--	2.51E-03	1.93E-03	4.64E-02	5.08E-02
Lead	--	--	--	6.98E-07	5.37E-07	1.29E-05	1.41E-05
Manganese	--	--	--	5.30E-07	4.08E-07	9.79E-06	1.07E-05
Nickel	1.53	2.26	--	2.93074E-06	2.25E-06	5.41E-05	3.80E+00
Toluene	--	--	1.60E-04	4.75E-06	3.65E-06	8.76E-05	2.56E-04
Xylene	--	--	1.11E-04	--	--	--	1.11E-04
Worst Case Single HAP (Chromium)							**7.47**
Totals	**6.93**	**8.59**	**1.45E-03**	**2.63E-03**	**2.03E-03**	**4.86E-02**	**15.57**

Note:
*Combined HAP total for the spray booth is based on the alloy with the highest HAP content, so combined HAP entry is not the sum of the rows above.

Appendix A: Emissions Calculations
Modification

Company Name: Kennametal Stellite LP
Source Address: 1201 Eisenhower Dr N, Goshen, IN 46526
Permit Number: 039-47548-00078
Reviewer: Sarah Germann

Uncontrolled Potential to Emit of New and Modified Units (tons/year)										
Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**NO_x**	**VOC**	**CO**	**Combined HAPs**	**Single HAP (Cobalt)**	
New Units										
Casting process heating torch	2.65E-03	0.01	0.01	8.37E-04	0.14	0.01	0.12	2.63E-03	2.51E-03	*Hexane*
Six (6) Thermal Jets (tower burners)	2.04E-03	0.01	0.01	6.44E-04	0.11	0.01	0.09	2.03E-03	1.93E-03	*Hexane*
Sintering Station furnace	0.05	0.20	0.20	0.02	2.58	0.14	2.16	4.86E-02	4.64E-02	*Hexane*
Linishing Line (Dust Collector DC12)	5.48	0.55	0.55	-	-	-	-	3.96	1.96	*Cobalt*
PTE of New Units	*5.53*	*0.76*	*0.76*	*0.02*	*2.82*	*0.16*	*2.37*	*4.02*	*1.96*	*Cobalt*
Total PTE Increase (tons/year):	**5.53**	**0.76**	**0.76**	**0.02**	**2.82**	**0.16**	**2.37**	**4.02**	**1.96**	*Cobalt*

**$PM_{2.5}$ listed is direct $PM_{2.5}$*

Appendix A: Emission Calculations
VOC and PM/PM10 Emissions
Laboratory Powder Coating Process

Company Name: **Kennametal Stellite LP**
Address City IN Zip: **1201 Eisenhower Dr N, Goshen, IN 46526**
Administrative Amendment Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Unit ID	Process	Maximum Usage (lbs/hr)	**Maximum Spray Time (hrs/yr)	Transfer Efficiency	*PM/PM10/PM2.5 Potential (lb/hr)	*PM/PM10/ PM2.5 Potential (ton/yr)	Control Eff. %	Controlled PM/PM10/ PM2.5 (ton/yr)
A	R&D	20	1095	30%	14.00	7.67	99%	0.08

* Assume all the PM emissions are PM10 and PM2.5 emissions.
** The maximum spray time is based on 1.75 hr setup time for each 0.25 hr coating R&D project:
8,760 hr/yr * 0.25 spray hr / (1.75 + 0.25) project hr = 1,095 hr/yr
Source provided transfer efficiency of 30% based on operating experience

METHODOLOGY

Potential VOC (lbs/hr) = Max. Usage (lbs/hr) * Weight % Organics
Potential VOC (tons/yr) = Max. Usage (lbs/hr) * Weight % Organics * (8760 hr/yr) * (1 ton/2000 lbs)
Potential PM/PM10 (lbs/hr) = Max. Usage (lbs/hr) * (1- Weight % Volatile) * (1-Transfer Efficiency)
Potential PM/PM10 (tons/yr) = Max. Usage (lbs/hr) * (1- Weight % Volatile) * (1-Transfer Efficiency) * Max. Spray Time (hrs/yr) *(1 ton/2000 lbs)

Appendix A: Emission Calculations
HAP Emissions
Laboratory Spray Booth with Powder Coating Process

Company Name: **Kennametal Stellite LP**
Address City IN Zip: **1201 Eisenhower Dr N, Goshen, IN 46526**
Administrative Amendment Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Booth	Coatings*	Maximum Usage (lbs/hr)	Maximum Spray Time** (hrs/yr)	Transfer Efficiency (%)	Weight % Chromium	Chromium Emissions (lb/hr))	Chromium Emissions (tons/yr)	Weight % Nickel	Nickel Emissions (lb/hr))	Nickel Emissions (tons/yr)	Weight % Cobalt	Cobalt Emissions (lb/hr))	Cobalt Emissions (tons/yr)	Combined HAPs (lb/hr))	Combined HAPs (tons/yr)
A	Stelcar 9135	20.0	1,095	30%	70.4%	9.86	5.40	20.0%	2.80	1.53	0.0%	0.00	0.00	12.66	6.93
A	Stelcar 9120	20.0	1,095	30%	4.0%	0.56	0.31	0.0%	0.00	0.00	10.0%	1.40	0.77	1.96	1.07
Booth A worst case before controls***						9.86	5.40		2.80	1.53		1.40	0.77	12.66	6.93
Total after controls			control efficiency	99%		0.10	0.05		0.03	0.02		0.01	0.01	0.13	0.07

* These coatings are not produced at the source, they are purchased for resale and R&D
** The maximum spray time is based on 1.75 hr setup time for each 0.25 hr coating R&D project:
8,760 hr/yr * 0.25 spray hr / (1.75 + 0.25) project hr = 1,095 hr/yr
*** Only one type of coating can be applied for each booth at the same time. Therefore, the worst case scenario is using the highest HAP content coating.
Source provided transfer efficiency of 30% based on operating experience

METHODOLOGY
HAPs emission rate (tons/yr) = Max. Usage (lbs/hr) x (1- Transfer Efficiency) x Weight % HAP x Max. Spray Time (hrs/yr) x 1 ton/2000 lbs

Appendix A: Emissions Calculations
Dust Collectors for Manufacturing Processes

Company Name: Kennametal Stellite LP
Address City IN Zip: 1201 Eisenhower Dr N, Goshen, IN 46526
Administrative Amendment Number: 039-47548-00078
Reviewer: Sarah Germann

Particulate

Emission Unit ID	Unit ID/Control Device	Actual Quantity of Dust lb/hr	Control Efficiency	Before Controls			After Controls		
				PM Emissions (tons/yr)	PM10 Emissions[2] (tons/yr)	PM2.5 Emissions[2] (tons/yr)	PM Emissions (tons/yr)	PM10 Emissions (tons/yr)	PM2.5 Emissions (tons/yr)
DC1	Air Melt Tower	0.247	99.90%	1.08	0.11	0.11	1.08E-03	1.08E-04	1.08E-04
DC2-1	Fume Hood[3,6]	0.195	99.90%	0.85	0.09	0.09	8.53E-04	8.53E-05	8.53E-05
DC3	Air Melt Tower[4]	0.247	99.90%	1.08	0.11	0.11	1.08E-03	1.08E-04	1.08E-04
DC4	Cobalt Classifying	0.024	99.90%	0.11	0.01	0.01	1.05E-04	1.05E-05	1.05E-05
DC5	Iron/Nickel Classifying	0.549	99.90%	2.41	0.24	0.24	2.41E-03	2.41E-04	2.41E-04
DC7	Castable Rework[5]	0.123	99.90%	0.54	0.05	0.05	5.39E-04	5.39E-05	5.39E-05
DC9	Rod/Wire Casting[5]	0.073	99.90%	0.32	0.03	0.03	3.20E-04	3.20E-05	3.20E-05
DC12	Linishing Line[6a]	1.250	99.90%	5.48	0.55	0.55	5.48E-03	5.48E-04	5.48E-04
	Total PTE			**11.87**	**1.19**	**1.19**	**1.19E-02**	**1.19E-03**	**1.19E-03**

Notes
1. Maximum quantities of PM collected per hour provided by source, ref. R039-14366-00078
2. PM10 and PM2.5 are considered to be 10% of the PM emissions, ref: R039-14366-00078
3. New dust collector installed in 2006, no change in PTE, ref. R039-27309-00078
4. Air melt atomization tower replaced original vacuum melt tower in 2007, PTE assumed the same as DC1, ref. R039-25404-00078
5. New DC9 installed for castable rework process - no change in process PTE, DC6 moved to new rod/wire casting process
- PTE assumed the same as induction furnace fume hood (DC2), 2010, ref. R039-29603-00078
6. Fume hood PTE revised based on replacement specs for Baghouse DC-2.
6a. Throughput based on 8760 hrs/year at maximum of 50 lbs/hr. Typical usage is approximately 15 lbs/hr.

HAPs

Emission Unit ID	Unit ID/Control Device	PM Emissions before Controls[8] (tons/yr)	Uncontrolled HAP PTE Estimate[7]					
			Chromium content (wt %)	Chromium emissions (tons/yr)	Nickel content (wt %)	Nickel emissions (tons/yr)	Cobalt content (wt %)	Cobalt emissions (tons/yr)
DC1	Air Melt Tower	1.08	17%	0.19	19%	0.21	36%	0.39
DC2-1	Fume Hood	0.85	17%	1.49E-01	19%	1.63E-01	36%	3.06E-01
DC3	Air Melt Tower	1.08	17%	0.19	19%	0.21	36%	0.39
DC4	Cobalt Classifying	0.11	17%	1.83E-02	19%	2.01E-02	36%	3.77E-02
DC5	Iron.Nickel Classifying	2.41	17%	0.42	19%	0.46	36%	8.62E-01
DC7	Castable Rework[9]	0.54	17%	9.40E-02	19%	1.03E-01	36%	1.93E-01
DC9	Rod/Wire Casting	0.32	17%	5.58E-02	19%	6.10E-02	36%	1.15E-01
D12	Linishing Line[6a]	5.48	17%	9.55E-01	19%	1.05E+00	36%	1.96E+00
	worst-case single HAP			**2.07**		**2.26**		**4.25**
	worst case combined HAPs				**8.59**			

Notes (numbers continued from table above)
7. Source provided waste characterization data for the dust
8. PM emissions are the same as the table above
9. Castable rework emissions from removing refractory liner from furnaces, particulate assumed to be 90% refractory/10% Stellite alloys

Emission Unit ID	Unit ID/Control Device	Control Efficiency	Controlled HAP PTE Estimate		
			Chromium emissions (tons/yr)	Nickel emissions (tons/yr)	Cobalt emissions (tons/yr)
DC1	Air Melt Tower	99.9%	1.89E-04	2.07E-04	3.88E-04
DC2-1	Fume Hood	99.9%	1.49E-04	1.63E-04	3.06E-04
DC3	Air Melt Tower	99.9%	1.89E-04	2.07E-04	3.88E-04
DC4	Cobalt Classifying	99.9%	1.83E-05	2.01E-05	3.77E-05
DC5	Iron.Nickel Classifying	99.9%	4.20E-04	4.59E-04	8.62E-04
DC7	Castable Rework	99.9%	9.40E-05	1.03E-04	1.93E-04
DC9	Rod/Wire Casting	99.9%	5.58E-05	6.10E-05	1.15E-04
DC12	Linishing Line[6a]	99.9%	9.55E-04	1.05E-03	1.96E-03
	worst-case single HAP		**2.07E-03**	2.26E-03	4.25E-03
	worst case combined HAPs			**8.59E-03**	

Methodology
Emissions before controls, lb/hr = Actual Quantity of Dust Collected (lbs/hr) / control effciency, %
Emissions before controls, US tons/yr = (Emissions before controls, lb/hr) x (8760 hr/yr) / (2000 lb/US ton)
Emissions after controls = Emissions before controls x (1 - control efficiency, %)
New DC-2 Baghouse Actual Quantity of Dust Collected (lb/hr) = Old Baghouse Actual Quantity of Dust Collected (lb/hr) x [New Baghouse Air Volume (ACFM) / Old Baghouse Air Volume (ACFM)]

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Emission Unit	Process Weight Rate (tons/hr)	PM Allowable Emission Rate (lbs/hr)	PM Potential to Emit (tons/yr)	Control Required to Meet Limit?
Linishing Line	0.03	0.35	5.48	Yes

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: **Kennametal Stellite LP**
Source Address: **1201 Eisenhower Dr N, Goshen, IN 46526**
Permit Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	223.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	111,500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.00205	0.0310	0.0025	0.00668
Potential Emission in tons/yr	0.12	0.12	0.12	0.11	1.73	0.14	0.37

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	3.64E-04	1.60E-04	1.11E-04	1.53E-05	4.60E-04	2.99E-04	3.61E-05	6.56E-05

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**1.51E-03**

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.3-1 and 3.3-2.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Appendix A: Emissions Calculations
Natural Gas Combustion (≤ 100 MMBtu/hr)
Rod/Wire Casting Process Heating Torch

Company Name: Kennametal Stellite LP
Source Address: 1201 Eisenhower Dr N, Goshen, IN 46526
Permit Number: 039-47548-00078
Reviewer: Sarah Germann

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
0.325	1020	2.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	2.65E-03	0.01	0.01	8.37E-04	0.14	0.01	0.12

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu; MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.9E-06	1.7E-06	1.0E-04	2.5E-03	4.7E-06

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	7.0E-07	1.5E-06	2.0E-06	5.3E-07	2.9E-06

Potential Emission of Combined HAPs (tons/yr)	**2.6E-03**	
Potential Emission of Highest Single HAP (tons/yr)	**2.5E-03**	**Hexane**

Methodology
Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Note:
Welding is not taking place in this process.
The heating torch is used to keep the ladle of the casting process hot enough to prevent molten metal from solidifying to the surface of the ladle.
There is no melting of metal, so there are not any process emissions for this unit.

Appendix A: Emissions Calculations
Natural Gas Combustion (≤ 100 MMBtu/hr)
Six (6) Thermal Jets/Air Melt Automization Tower Burners for Heating Tundish

Company Name: **Kennametal Stellite LP**
Source Address: **1201 Eisenhower Dr N, Goshen, IN 46526**
Permit Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
0.25	1020	2.1

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	2.04E-03	0.01	0.01	6.44E-04	0.11	0.01	0.09

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu; MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.3E-06	1.3E-06	8.1E-05	1.9E-03	3.7E-06

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.4E-07	1.2E-06	1.5E-06	4.1E-07	2.3E-06

Potential Emission of Combined HAPs (tons/yr)	**2.0E-03**	
Potential Emission of Highest Single HAP (tons/yr)	**1.9E-03**	**Hexane**

Methodology
Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Note:
The six burners are used to heat up the tundish and keep molten alloy which is poured into it from solidifying on the surface.
The molten alloy then enters the tower where it is converted to a powder for additional processing.
These burners are not actually heating the metal, so there are not any process emissions for these units.

Appendix A: Emissions Calculations
Natural Gas Combustion (≤ 100 MMBtu/hr)
Furnace at the Sintering station to heat Refractory of Caster

Company Name: **Kennametal Stellite LP**
Source Address: **1201 Eisenhower Dr N, Goshen, IN 46526**
Permit Number: **039-47548-00078**
Reviewer: **Sarah Germann**

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
6.00	1020	51.5

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.05	0.20	0.20	0.02	2.58	0.14	2.16

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu; MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.4E-05	3.1E-05	1.9E-03	4.6E-02	8.8E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.3E-05	2.8E-05	3.6E-05	9.8E-06	5.4E-05

Potential Emission of Combined HAPs (tons/yr)	**4.9E-02**	
Potential Emission of Highest Single HAP (tons/yr)	**4.6E-02**	**Hexane**

Methodology
Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Note:
The sintering station heats/cures the refractory of a caster used in the production of retal rods from molten alloy.
The torch at the sintering station does not heat metal. It heats the refractory of the caster to remove residual moisture prior to the addision of molten metal.
This furnace unit does not directly heat metal, so there are not any process emissions for this unit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Randy Porter
Kennametal Stellite LP
1201 Eisenhower Drive North
Goshen, IN 46526

DATE: July 1, 2024

FROM: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Registration Revision
039-47548-00078

This notice is to inform you that a final decision has been issued for the air permit application referenced above.

Our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person. In addition, the Notice of Decision has been sent to the OAQ Permits Branch Interested Parties List and, if applicable, the Consultant/Agent and/or Responsible Official/Authorized Individual.

The final decision and supporting materials are available electronically; the original signature page is enclosed for your convenience. The final decision and supporting materials available electronically at:

IDEM's online searchable database: http://www.in.gov/apps/idem/caats/ . Choose Search Option **by Permit Number**, then enter permit 47548

and

IDEM's Virtual File Cabinet (VFC): https://www.in.gov/idem. Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, or have difficulty accessing the documents online, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

July 1, 2024
Kennametal Stellite LP
039-47548-00078

To: Interested Parties

This notice is to inform you that a final decision has been issued for the air permit application referenced above. This notice is for informational purposes only. You are not required to take any action.

You are receiving this notice because you asked to be on IDEM's notification list for this company and/or county; or because your property is nearby the company being permitted; or because you represent a local/regional government entity.

The enclosed Notice of Decision Letter provides additional information about the final permit decision.

The final decision and supporting materials are available electronically at:

IDEM's online searchable database: http://www.in.gov/apps/idem/caats/ . Choose Search Option by Permit Number, then enter permit 47548

and

IDEM's Virtual File Cabinet (VFC): https://www.in.gov/idem. Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit.

Please Note: *If you would like to be removed from the Air Permits mailing list, please contact Joanne Smiddie-Brush with the Air Permits Administration Section at 1-800-451-6027, ext. 3-0185 or via e-mail at JBRUSH@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
Final Interested Parties Cover Letter 10/13/2023

Mail Code 61-53

IDEM Staff	LGAINES 7/1/2024 Kennametal Stellite LP 039-47548-00078 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Randy Porter Kennametal Stellite LP 1201 Eisenhower Dr N Goshen IN 46526 (Source CAATS) VIA UPS									
2		Nicole Williams Plant Manager Kennametal Stellite LP 1201 Eisenhower Dr N Goshen IN 46526 *(RO CAATS)*									
3		Jeri Seely The Mail-Journal PO Box 188 Milford IN 46542 *(Affected Party)*									
4		Mr. Roger Schneider The Goshen News 114 S Main St Goshen IN 46526 *(Affected Party)*									
5		Nibco, Inc. 701 Eisenhower Drive Goshen IN 46526 *(Affected Party)*									
6		Matthew Graves AECOM Gulf Tower - 707 Grant St 5th Fl Pittsburg PA 15219 *(Consultant)*									
7		Elkhart City Council and Mayors Office 229 S Second St Elkhart IN 46516 *(Local Official)*									
8		Elkhart County Health Department 608 Oakland Ave Elkhart IN 46516 *(Health Department)*									
9		Goshen City Hall and Mayors Office 202 S 5th St, Ste 1 Goshen IN 46528 *(Local Official)*									
10		Elkhart County Board of Commissioners 117 N 2nd St Goshen IN 46526 *(Local Official)*									
11											
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