



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

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MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

CERTIFIED MAIL

November 18, 2008

**Re: *Variance from Classification as a Waste
Metallurg Vanadium Corporation
U.S. EPA I.D. No.: OHD 042 319 244***

Mr. David White
Metallurg Vanadium Corporation
60790 Southgate Road
Cambridge, Ohio 43725

Dear Mr. White:

On September 5, 2008, the director of Ohio EPA granted Metallurg Vanadium Corporation (Metallurg) a draft variance from classification as a waste. This draft variance allows Metallurg to store and process vanadium containing catalyst, generated by any petroleum refining operation, without obtaining a hazardous waste permit. Without this variance, some of Metallurg's activities would be regulated as hazardous waste management activities and would require a hazardous waste facility installation and operation permit. The variance from classification as a waste is effective on the day of issuance and entry into the director's journal. Both of these occurred today, November 18, 2008.

Also, on September 5, 2008, the director of Ohio EPA provided public notice of his decision to tentatively grant the variance from classification as a waste. Since no comments were received during the 30-day public comment period, there is no responsiveness summary. No changes were made to the variance document since the draft issuance. Please find enclosed a copy of the final variance document.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Ohio EPA is an Equal Opportunity Employer

Mr. David White
Metallurg Vanadium Corporation
November 18, 2008
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If you have any questions concerning this variance, please contact Karen Hale of Ohio EPA's Central Office at (614) 644-2927.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeremy A. Carroll". The signature is fluid and cursive, with a large initial "J" and "C".

Jeremy A. Carroll, P.E.
Manager, Regulatory and Information Services Section
Division of Hazardous Waste Management

Enclosures

cc: Karen Hale, RIS, DHWM
Jim Sferra/Donna Goodman, DHWM, SEDO
Legal, Ohio EPA
file

OHIO EPA GRANTS FINAL VARIANCE FROM CLASSIFICATION AS A WASTE

On November 18, 2008, Ohio EPA granted a final variance from classification as a waste to Metallurg Vanadium Corporation (METVAN), located at 60790 Southgate Road, Cambridge, Ohio 43725. The variance from classification as a waste applies to reclaimed spent catalyst generated from petroleum refining industry. The U.S EPA identification number for this facility is OHD042319244.

Why did Metallurg ask Ohio EPA to grant a Variance?

METVAN operates and maintains a metals recycling facility. The primary metal of interest to METVAN is vanadium. METVAN accepts vanadium containing spent catalyst from the petroleum refining industry for recycling. METVAN's original variance, issued in 2006, was only applicable to spent catalyst generated by a specific company. The modified variance applies to vanadium containing spent catalyst generated by any petroleum refining operation.

Once received, the company recycles this spent catalyst by concentrating the levels of vanadium using industrial furnaces to make an alloy that contains iron and vanadium. The product is sold to the steelmaking industry for use in making steel. Vanadium makes steel stronger.

Without this variance, some of METVAN's activities would be regulated as hazardous waste management activities and METVAN would need a hazardous waste facility installation and operation permit. This variance will allow METVAN to store and process vanadium containing catalyst, generated by any petroleum refining operation, without obtaining a hazardous waste permit. The final variance contains the conditions under which the facility must operate.

Can I appeal this final variance from classification as a waste?

Yes, if you are an officer of an agency of the state or of a political subdivision, acting in a representative capacity, or any person who would be aggrieved or adversely affected by this variance from classification as a waste, you have the right to appeal this decision to the Environmental Review Appeals Commission (ERAC).

If I decide to appeal this final variance, how and when must I make the appeal?

If you file an appeal, you must put it in writing no later than December 20, 2008. Your appeal must explain why you are appealing the action and the grounds you are using for your appeal. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. You must file your appeal, according to Ohio Revised Code § 3745.04 with ERAC at the following address: **Environmental Review Appeals Commission**, 309 South Fourth Street, Room 222, Columbus, Ohio 43215. You must send a copy of the appeal to the director of Ohio EPA at the following address no later than three (3) days after you file it with ERAC: **Chris Korleski, Director of Ohio EPA**, P.O. Box 1049, Columbus, Ohio 43216-1049.

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

Metallurg Vanadium Corporation
60790 Southgate Road
Cambridge, Ohio 43725

Variance from Classification as a
Waste

Applicant

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

PREAMBLE By: *Donna Lassus* Date: 11-18-08

It is agreed by the parties hereto as follows:

I. JURISDICTION

This Variance from Classification as a Waste (Variance) is issued to Metallurg Vanadium Corporation (Applicant) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Ohio Revised Code (ORC) §§ 3734.02, 3734.14, 3745.01 and Ohio Administrative Code (OAC) rule 3745-50-23.

II. PARTIES BOUND

This Variance shall apply only to the Applicant. No change in ownership of the Applicant or of the Facility shall in any way alter the Applicant's obligations under this Variance.

III. DEFINITIONS

1. Unless otherwise stated, all terms used in this Variance shall have the same meaning as defined in ORC Chapter 3734. and the rules promulgated thereunder. Whenever the terms listed below are used in this Variance, the following definitions shall apply:

- a. "Accepted at Facility" shall mean that time when K171/K172 is within the Facility security fence.
- b. "Application" shall mean the responses to the criteria listed in OAC rule 3745-50-24 (C) and supporting documents for a Variance submitted by Applicant on January 30, 2003, January 4, 2005, November 15, 2005 January 23, 2006 and June 6, 2008 which is attached hereto and incorporated herein.
- c. "Emergency Spill" is defined as any on-site release of Reclaimed Catalyst, Roasted Catalyst and/or Process Residuals that could result in or pose an imminent danger which requires prompt action to mitigate or minimize the impact of the incident on human health or the environment; or any release that Applicant is required to report to Ohio EPA's Emergency Response Section or the National Response Center.
- d. "Facility" shall mean the metals reclamation site at 60790 Southgate Road, Cambridge, Ohio and all contiguous, land, and structures used for storing and processing Reclaimed Catalyst.
- e. "Incidental Spill" is a release of Reclaimed Catalyst, Roasted Catalyst and/or Process Residuals that may occur during routine handling within the Facility boundaries and which does not pose an imminent danger to human health and the environment.
- f. "K171/K172" means spent hydrotreating or hydrorefining catalyst from petroleum refining operations that is classified as a hazardous waste under Ohio EPA's hazardous waste rules.
- g. "LimeAdd™" is the material generated in the Roaster baghouse when lime is allowed to react with sulfur dioxide in the flue gas desulfurization unit. It consists of calcium sulfite, calcium sulfate, unreacted lime and flyash.
- h. "Products" shall include but not be limited to calcium aluminate additive (Revan™), slabs containing iron, nickel and molybdenum (FeNiMoly®) and ferrovanadium alloy (FeroVan®).
- i. "Process Residuals" mean those secondary materials generated from the processing and management of Reclaimed Catalyst and Roasted Catalyst including but not limited to LimeAdd™, #1 baghouse dust, #2 baghouse dust, water removed from the roaster feed building and vehicle wash water.

- j. "Railcar Unloading Station" consists of the following units: railcar screw conveyor system, railcar canopy and gangway, containment and conveyor area pad, track pan system, truck loading pad, and roll-off box or truck.
- k. "Raw Material Storage Building" is a containment building as defined in OAC rule 3745-50-10 at the Facility where Reclaimed Catalyst and Roasted Catalyst are stored and/or blended prior to processing in the roaster or electric arc furnaces.
- l. "Reclaimed Catalyst" means K171/K172 that has been Accepted at the Facility, containing vanadium and/or nickel and/or molybdenum that has been reclaimed from crude oils, oil sands, or other naturally occurring hydrocarbon deposits containing one or more of these metals and is destined for on-site reclamation.
- m. "Roasted Catalyst" shall mean the Reclaimed Catalyst that has been processed through the roaster at the Facility and is further reclaimed for its metal values.
- n. "Roaster" for the purposes of inspections means the roaster feed building, roaster feed hoppers, conveyor system, roaster, baghouse and LimeAdd™ silo.
- o. "Yard Foreman Inspection" includes inspection of #1 baghouse, # 2 baghouse and briquetter system.

IV. FINDINGS

1. Applicant is incorporated to do business in the State of Ohio. Applicant is a "person" as defined in ORC § 3734.01(G) and OAC rule 3745-50-10(A).
2. Applicant operates and maintains a metals reclamation facility located at 60790 Southgate Road, Cambridge, Ohio 43725. The materials of value to the Applicant are predominantly vanadium, nickel, molybdenum and alumina.
3. Applicant receives materials from suppliers predominately in the petroleum refining and power industries. The materials received from these industries include vanadium-bearing spent hydrotreating and hydrorefining catalysts and nonhazardous bottom ash from oil burning power plants.

4. The industrial process used by Applicant to reclaim vanadium-bearing materials is a pyrometallurgical process that uses a roaster and electric arc furnaces.
5. Applicant receives Reclaimed Catalyst from the petroleum refining industry. The Reclaimed Catalyst is of value to the Applicant due to its vanadium, nickel and molybdenum content. The vanadium concentration of vanadium containing Reclaimed Catalyst is higher than naturally occurring vanadium ore. Naturally occurring vanadium ore deposits that are economically feasible for mining generally contain approximately 0.5 percent vanadium. The vanadium content of the Reclaimed Catalyst will vary but will typically be greater than 1.5 percent vanadium and often between 7 and 9 percent.
6. Applicant further reclaims the Roasted Catalyst to yield three products: Ferrovan®, Revan™ and FeNiMoly®.
7. The Application addresses the standards and criteria set forth in OAC rule 3745-50-24 (C) for issuing a variance from classification as a waste in the following manner:

a. The degree of processing the material has undergone and the degree of further processing that is required:

The metals of interest to Applicant are vanadium, nickel and molybdenum. Some or all of these occur in crude oils and oil sands at parts per million (ppm) levels, with the exact concentration dependent on the oil source. They are reclaimed from the oil during the upgrading or refining process so that they are present at the percent level in the Reclaimed Catalyst.

The Reclaimed Material will be utilized in Applicant's proprietary reclamation process where the metal values will be reclaimed further to produce the commercial products Ferrovan®, FeNiMoly® and Revan™.

b. The value of the material after it has been reclaimed:

The Reclaimed Catalyst is of value due to its vanadium, nickel and molybdenum content. The Applicant further processes the catalyst to produce three products. All three products are used in the iron and steelmaking industry. Ferrovan® is an iron and vanadium alloy that is used to make steel stronger which can result in lighter structural steel components. FeNiMoly® alloy is used to make stainless steel and Revan™ is used as a fluxing agent in the steelmaking industry.

The value of the Ferrovan®, FeNiMoly® and Revan™ will be determined by market conditions and in the case of the ferroalloys, the content of vanadium, nickel and molybdenum contained within them. The value of these metals has risen with increased global demand and a shortage of vanadium bearing raw materials.

c. The degree to which the Reclaimed Catalyst is like an analogous raw material:

The Reclaimed Catalyst is valuable to the Applicant for its vanadium and/or nickel and/or molybdenum content with vanadium being of primary interest to the Applicant. Vanadium containing ore deposits contain less than 1 percent vanadium pentoxide (approximately 0.5 percent vanadium) and are often much lower. The vanadium content of the Reclaimed Catalyst will vary but will typically be greater than 1.5 percent vanadium and often between 7 and 9 percent.

There are no domestic sources of vanadium bearing ore, although one uranium ore body located in Utah and Colorado does contain vanadium at approximately 0.75 percent. The most extensive ore sources are located in South Africa, Russia and China.

d. The extent to which an end market for the Reclaimed Catalyst is guaranteed:

The end market or further reclamation for the Reclaimed and Roasted Catalyst is guaranteed since it is further processed at the Facility, by the Applicant, to produce the final products, Ferrovan®, FeNiMoly® and Revan™.

The products are sold for use in the iron and steelmaking industry. Ferrovan® is an iron and vanadium alloy that is used to make steel stronger allowing for production of lighter structural components. FeNiMoly® is an alloy used to make stainless steel and Revan™ is used as a fluxing agent in the steelmaking industry.

e. The extent to which the reclaimed material is handled to minimize loss:

The Application includes narrative information and attachments regarding the management and processing of Reclaimed and Roasted Catalyst. To ensure the proper handling of Reclaimed and Roasted Catalyst, the Applicant maintains and implements the following plans and procedures: spill response plan, emergency response, Facility inspections, site security, safety, and employee training.

The Applicant provided copies of its spill response plans and Facility inspection report forms. The spill response plans include the following information: emergency contacts, areas of the Facility where spills might occur, spill clean-up procedures, equipment decontamination procedures, and a spill report form. The form is completed each time a spill event occurs. Also included is a list of spill response equipment the Applicant maintains at the Facility.

The Facility specific inspection procedures and report forms list the Facility areas that are inspected. The Railcar station, Roaster and LimeAdd™ silo are inspected once each day of operation. Areas where Roasted Catalyst or Process Residuals are stored are inspected once per week. Each inspection is documented. The information recorded on the inspection report form includes: description of problem identified, person notified, action/clean-up method, and location of the problem.

8. Based upon the information submitted by the Applicant in the Application, the Director finds that the Reclaimed Catalyst is not a waste when Accepted at the Facility for further reclamation and managed according to the conditions of this Variance.

V. GENERAL CONDITIONS

1. All activities undertaken by Applicant pursuant to this Variance shall be performed in accordance with the requirements of all applicable federal, state and local laws, regulations and ordinances.

2. Applicant shall construct, operate, and maintain all of the equipment and storage units associated with the reclamation process so as to minimize loss or release to the environment of Reclaimed Catalyst, Roasted Catalyst and Process Residuals as generally described in the Application. Nothing in the preceding sentence, however, shall prohibit Applicant from constructing, operating, maintaining, repairing, improving, enhancing, or changing equipment or the structures of the physical plant associated with the reclamation process so long as Applicant's equipment, structures and reclamation process remain generally consistent and functionally equivalent to those described in the Application. In addition, the Applicant shall comply with the following specific conditions:
 - a. **Manifest System:** Applicant shall:
 - i. Sign the manifest and comply with OAC rule 3745-65-71, Use of manifest system, regarding the manifest. Manifest shall be retained on-site at the Facility for three years.
 - ii. Comply with OAC rule 3745-65-76, Unmanifested waste report, when hazardous waste K171/K172 is received at the Facility not accompanied by a hazardous waste manifest.
 - b. **Storage:** Applicant shall store Reclaimed Catalyst and Roasted Catalyst that does not contain free liquids as defined by the paint filter test, Method 9095A, SW-846, either in piles, tanks, railcars and/or containers at the Facility.
 - i. Containers, railcars and tanks shall be nonleaking and compatible with the catalyst. Containers shall be kept closed when catalyst is not being added or removed. Railcars shall be stored at the railcar unloading station. Containers shall be stored in the Raw Material Storage Buildings.
 - ii. Piles shall only be used for storage provided the piles are located in a Raw Material Storage Building and the floor of that Raw Material Storage Building is compatible with the catalyst.

- c. **Storage:** Applicant shall store Reclaimed Catalyst that contains free liquids as defined by the paint filter test, Method 9095A, SW-846, in tanks, containers, railcars or piles at the Facility.
- i. Containers, railcars and tanks shall be nonleaking, compatible with the Reclaimed Catalyst. Containers shall be kept closed when catalyst is not being added or removed. Railcars shall be stored at the railcar unloading station. Containers shall be stored in the Raw Material Storage Buildings.
 - ii. Piles shall only be used for storage provided the piles are located in a wet storage area of a Raw Material Storage Building that is compatible with the catalyst and has a primary barrier to prevent migration of oily residue into the barrier.
- d. **Raw Material Storage Building:** With respect to the storage of Reclaimed Catalyst, Roasted Catalyst and Process Residuals, Applicant shall operate and inspect the Raw Material Storage Buildings in accordance with the terms and conditions of any permit issued pursuant to submittal of a part B application, any renewal permit, or any modified permit when such permit is issued by the director.
- In the event that Applicant no longer possesses an effective hazardous waste storage permit, Applicant shall operate and inspect the Raw Material Storage Buildings according to OAC rules 3745-256-100 to 3745-256-102.
- e. **Process Residuals:** Process Residuals are not listed hazardous waste K171 or K172. Applicant shall determine whether Process Residuals destined for disposal meet the definition of a characteristic hazardous waste and/or are defined as a listed hazardous waste other than K171 or K172, pursuant to OAC rule 3745-52-11. Process Residuals meeting the definition of a hazardous waste shall be managed according to ORC Chapter 3734 and the hazardous waste management rules promulgated thereunder.
- f. **Engineering Controls - Releases:** Applicant shall use engineering controls (e.g., enclosed conveying systems, loading ports and transport vehicles) and implement procedures at the Facility to minimize the release of Roasted Catalyst fugitive dust during the loading of and transport of Roasted Catalyst.

- g. **Engineering Controls - LimeAdd™ Silo:** Applicant shall use engineering controls and implement procedures at the Facility to minimize the release of LimeAdd™ fugitive dust outside the silo during the loading of transport vehicles.
- h. **Contingency Plan:** Applicant shall maintain, revise as necessary, and implement the Facility contingency plan which includes but is not limited to, emergency notification and evacuation procedures, listing of emergency equipment, identification of hazardous materials, control procedures, post-emergency procedures and specific emergency procedures for areas of the Facility as provided in Attachment F of the Application. The plant areas are the mill, yard, shipping, maintenance and roaster areas.
- i. **Emergency Spill:** Applicant shall:
 - i. Document the occurrence of an Emergency Spill, fire or explosion requiring implementation of the contingency plan and describe the cause of the emergency situation and the action taken. The Applicant shall retain the documentation on-site at the Facility until corrective action pursuant to ORC Chapter 3734 is completed.
 - ii. Determine whether cleanup residuals destined for disposal meet the definition of a characteristic hazardous waste and/or are defined as a listed hazardous waste, other than listed hazardous waste, K171 or K172, pursuant to OAC rule 3745-52-11. Cleanup residuals meeting the definition of a hazardous waste shall be managed according to ORC Chapter 3734 and the hazardous waste management rules promulgated thereunder.
- j. **Incidental Spill:** Applicant shall:
 - i. Clean up Incidental Spills of Reclaimed Catalyst, Roasted Catalyst and Process Residuals immediately, and
 - ii. Determine whether cleanup residuals destined for disposal meet the definition of a characteristic hazardous waste and/or are defined as a listed hazardous waste, other than listed hazardous waste, K171 or

K172, pursuant to OAC rule 3745-52-11. Cleanup residuals meeting the definition of a hazardous waste shall be managed according to ORC Chapter 3734 and the hazardous waste management rules promulgated thereunder.

- k. **Inspections:** Applicant shall maintain, and revise as necessary, Facility inspection procedures and inspection report forms, and implement Facility inspections as provided in Section 2, Attachment D of the Application for the following areas of the Facility: Roaster, Yard Foreman Inspection, Railcar Unloading Station and Emergency and Safety Equipment Inspections.

The designated areas of the Facility as noted on the Applicant's inspection report forms shall be inspected a minimum of the frequencies given in the inspection procedures in Section 2, Attachment D when the unit(s) is/are in operation. A unit is in operation when it is processing or holding material. Each unit shall be inspected for leakage, spillage, structural failure and structural damage. Each inspection shall be recorded on the appropriate inspection report form and the form retained on-site at the Facility for three years.

- l. **Training:** Applicant shall maintain, revise as necessary, and implement an employee training program as described in Section 2, Attachment E of the Application. The training components will include contingency plan training, materials handling training, supervisor training and process training. Each employee shall be trained within the timescales defined in OAC rules 3745-65-16(B) and (C). Documentation of training shall be signed by the employee and retained on-site at the Facility for three years.
- m. **Equipment Maintenance:** Applicant shall maintain in good working order the equipment used to handle, store, convey and contain Reclaimed Catalyst, Roasted Catalyst and Process Residuals. The equipment includes but is not limited to: tanks, containers (including transport vehicles), secondary containment systems, loading and unloading areas, sumps, piping and conveyance systems.

- n. **Recordkeeping:** Applicant shall record the amount of LimeAdd™ sold for use as an ingredient or as a substitute for a commercial product, the amount of Roasted Catalyst sold for further reclamation and the amount of baghouse dust reclaimed either on-site or off-site. The record must include each customer's name and address, and a description of how the materials were recycled. In addition, a record of the amount of Reclaimed Catalyst received from each supplier shall be maintained by the Applicant. This record keeping shall be done for three consecutive years and all records shall be kept until December 31, 2014.
- o. **Reporting:** Applicant shall report the information required in Section V, Paragraph 2.n., above, to Ohio EPA according to Section XIII of this Variance on an annual basis by March 1st of each year for three consecutive years. The first report will be due March 1, 2009. The information requested may be reported in a paper report format of Applicant's choice or using an electronic format agreed upon by the Applicant and Ohio EPA.
- p. **Renewal of Variance:** In the event that this Variance expires prior to a final action of the Director to renew or reissue this Variance, the Applicant may continue to operate in accordance with the terms and conditions of the expired variance until a new variance is issued or denied provided that:
 - i.) The Applicant submits a complete application for a renewal variance at least one hundred eighty days before the expiration date of this Variance unless permission for a later submittal date has been authorized by the Director prior to the expiration date of this Variance;
 - ii.) Through no fault of the Applicant a new variance has not been issued pursuant to OAC rule 3745-50-23 on or before the expiration date of the previous variance.
- q. **Notice:** Applicant shall provide a written notice to Ohio EPA, in accordance with Section XIII, within seven days after the date of the events described in Section XI, Paragraphs 1.a. and 1. b occur.
- r. **Sampling and Remediation Plan:** Within 30 days after the date any of the events described in Section XI, Applicant shall prepare and submit to Ohio

EPA a Sampling and Remediation Plan (SRP) that meets the requirements in OAC rules 3745-66-11(A) and (B), 3745-66-97 and 3745-66-14, for all areas at the Facility other than the Raw Material Storage Buildings where Reclaimed Catalyst, Roasted Catalyst and Process Residuals were managed or stored except where processed in the electric arc furnaces.

- s. The Applicant shall provide the public notice of the opportunity to review and submit written comments on the SRP. The notice shall be published in a major local newspaper of general circulation in the area where the facility is located. The public notice shall provide that comments must be submitted within 30 days of the date of the notice to the following address:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Regulatory Services Unit
Lazarus Government Center
P. O. Box 1049
Columbus, Ohio 43216-1049

- t. The SRP is subject to Ohio EPA review and approval. Applicant shall submit the SRP to Ohio EPA according to Section XIII. If Ohio EPA does not approve the SRP and provides Applicant with a written statement of deficiencies, Applicant shall revise the SRP or submit a new SRP for approval that corrects the stated deficiencies within 30 days after receipt of such written statement. Ohio may approve the SRP with modifications. If Ohio EPA modifies the SRP, the modified SRP becomes the approved SRP.
- u. Upon receipt of the approved SRP, Applicant shall implement the approved SRP, in accordance with the requirements of OAC rules 3745-66-11 (A) and (B), 3745-66-97 and 3745-66-14 and the specifications and schedule in the approved SRP.
- v. Within 30 days after completion of work required by the approved SRP, Applicant shall submit to Ohio EPA, for review and approval, a certification that the work was conducted in accordance with the approved SRP. The certification must be signed by Applicant and must follow the format in OAC rule 3745-50-42 (D).

The signed certification must be submitted to Ohio EPA, in accordance with Section XIII. Ohio EPA retains the right to inspect the Facility and take samples, photographs and notes, access process records, logs, invoices, analytical data, etc, prior to, during, and subsequent to certification of the SRP. If after inspection and review of the Facility, Ohio EPA does not conclude that the Facility meets the conditions of the certified SRP, it shall deem the "certified" SRP invalid and cleanup of the Facility inadequate.

- w. Within 30 days of notice that the "certified" SRP is invalid, Applicant shall prepare and submit a revised SRP to Ohio EPA indicating how it intends to correct the deficiencies or problems. Upon receipt of approval of the revised SRP, Applicant shall, within 45 days, implement the revised SRP and submit a signed, revised certification of cleanup to Ohio EPA. As illustrated above, Ohio EPA retains the right to inspect the Facility and Applicant's records to ascertain whether or not the Facility has satisfactorily been cleaned up.
- x. **Notification:** Applicant shall provide written notification to Ohio EPA according to Section XIII of this variance whenever Applicant receives Reclaimed Catalyst from a new supplier. The notification shall include the original supplier's name, country of origin, amount to be received on a yearly basis and the approximate percentage of vanadium, nickel and molybdenum by weight contained in the Reclaimed Catalyst.
- y. **Rejected Reclaimed Catalyst:** Reclaimed Catalyst that cannot be reclaimed by the Applicant for any reason shall be returned as soon as possible to the supplier, or transported to a permitted hazardous waste storage, treatment, or disposal facility, or sent for legitimate recycling. The rejected Reclaimed Catalyst must be managed as hazardous waste K171 or K172 in accordance with all applicable Ohio EPA hazardous waste laws. The Applicant may assume generator duties for the purpose of completing the manifest.

VI. ACCESS TO INFORMATION

Applicant shall provide Ohio EPA, upon request and within 30 days unless an alternate time frame is agreed upon, in writing, by the Applicant and Ohio EPA, copies of all information relating to this Variance within its respective possession or control, or within

the possession or control of its respective contractors or agents, including but not limited to documents and information related to the issuance, use and implementation of this Variance.

Applicant may assert a claim that documents and other information submitted to Ohio EPA pursuant to this Variance are confidential under the provisions of OAC rule 3745-50-30. If no such claim of confidentiality accompanies the documents and other information when submitted to Ohio EPA, the documents and other information may be made available to the public without notice to Applicant.

Nothing in this Section shall be construed as in any way limiting Ohio EPA's access, inspection and information gathering rights and authorities, including enforcement authorities related thereto, under any applicable statute or regulation.

VII. ACCESS TO SITES

Applicant shall provide Ohio EPA with access, at all reasonable times, including during normal business hours, to the Facility. Access under this Variance shall be for the purpose of conducting any activity related to this Variance or Ohio EPA's regulatory responsibilities, including but not limited to, the following:

1. Monitoring the implementation or use of this Variance;
2. Conducting sampling;
3. Inspecting and copying records, contracts, and other documents and information related to the implementation or use of this Variance; and,
4. Verifying any data and other information submitted to Ohio EPA.

Nothing in this Section shall be construed as in any way limiting Ohio EPA's access, inspection and information gathering rights and authorities, including enforcement authorities related thereto, under any applicable statute or regulation.

VIII. OTHER APPLICABLE LAWS

All actions taken pursuant to this Variance shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. This Variance does not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Applicant.

IX. OTHER CLAIMS

Nothing in this Variance shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to this Variance, for any liability arising from, or related to, the operation of Applicant's Facility.

X. REVOCATION

1. The following are causes for revoking a variance during its term:
 - a. Noncompliance by the Applicant with any condition of the variance;
 - b. The Applicant's failure in the Application or during the variance issuance process to disclose fully all relevant facts, or the Applicant's misrepresentation of any relevant facts at any time; or,
 - c. A determination that the Facility is operated in a manner that endangers human health or the environment.

XI. TERMINATION

1. Unless otherwise terminated by the Director, this Variance shall terminate ten years after the effective date of this Variance, or when any of the following events occur:

- a. Applicant no longer owns or operates the Facility;
- b. Applicant no longer receives Reclaimed Catalyst; or,
- c. Director revokes variance.

XII. MODIFICATIONS

This Variance may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

XIII. NOTICE

All documents required to be submitted by Applicant pursuant to this Variance shall be addressed to:

Ohio Environmental Protection Agency
Southeast District Office
Division of Hazardous Waste Management
2195 Front Street
Logan, Ohio 43138

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Regulatory Services Unit
Lazarus Government Center
P. O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Regulatory Services Unit
Lazarus Government Center
50 West Town Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XIV. RESERVATION OF RIGHTS

Ohio EPA reserves its right to exercise its lawful authority to require Applicant to perform corrective action at the Facility, at some time in the future, pursuant to ORC Chapter 3734. or any other applicable law. Applicant reserves its rights to raise any administrative, legal or equitable claim or defense with respect to any final action of the Director regarding such corrective action. Ohio EPA and Applicant each reserve all other rights, privileges and causes of action, except as specifically waived in Section XV. of this Variance.

XV. WAIVER

Without admission of any of the findings made under this Variance, the Applicant agrees that this Variance is lawful and reasonable and agrees to comply with the terms and conditions of this Variance.

Applicant hereby waives the right to appeal the issuance, terms and conditions, and service of this Variance, and Applicant hereby waives any and all rights Applicant may have to seek administrative or judicial review of this Variance either in law or equity.

Notwithstanding the preceding, Ohio EPA and Applicant agree that if this Variance is appealed by any other party to the Environmental Review Appeals Commission, or any court, Applicant retains the right to intervene and participate in such appeal. In such an event, Applicant shall continue to comply with the terms and conditions of this Variance notwithstanding such appeal and intervention unless this Variance is stayed, vacated or modified.

XVI. EFFECTIVE DATE

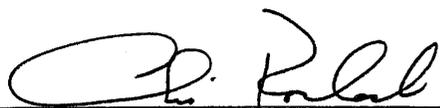
The effective date of this Variance is the date this Variance is entered into the Ohio EPA Director's journal.

XVII. SIGNATORY AUTHORITY

Each undersigned representative of a party to this Variance certifies that he or she is fully authorized to enter into this Variance and to legally bind such party to this Variance.

IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency



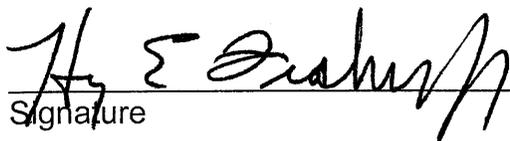
Chris Korleski
Director

11/13/08

Date

IT IS SO AGREED:

Metallurg Vanadium Corporation



Signature

21 Oct 08

Date

Hay E. Frakes JR

Printed or Typed Name

President

Title