



OHIO E.P.A.

AUG 12 2014

DIRECTOR'S JOURNAL

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.

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

By: Dan Cassler Date: 8-12-14

CERTIFIED MAIL

August 12, 2014

ReMuriate Technologies
6191 County Road 10
Delta, Ohio 43515

Re: ReMuriate LLC
Non-Permit Related Variance
Approved
Hazardous Waste
Fulton
OHR000040931

Dear Sir or Madam:

On June 3, 2014, the director of Ohio EPA granted ReMuriate LLC (ReMuriate) a draft variance from classification as waste. This draft variance allows spent pickle liquor generated by ReMuriate, at its facility located at 6191 County Road 10, Delta, Ohio 43515, to not be considered a waste under Ohio's hazardous waste laws when processed into regenerated hydrochloric acid, which is then used in the steel-making process, and iron oxide. 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, August 12, 2014. The Agency is issuing this variance because the spent pickle liquor is used and managed more like a product than a waste, allowing ReMuriate LLC to ship the spent pickle liquor to a reclaimer without a hazardous waste manifest.

On June 3, 2014, the director of Ohio EPA provided a 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.

If you have any questions concerning this variance, please contact Annette De Havilland of Ohio EPA's Central Office, Division of Materials and Waste Management, at (614) 644-2621.

Sincerely,

Demetria Crumiell-Hagens
Demetria Crumiell-Hagens, Administrative Professional II
Division of Materials and Waste Management

Enclosures

cc: Annette De Havilland, DMWM, CO
Scott Bergreen, DMWM, SEDO

File

**BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of:

**ReMuriate LLC
6191 County Road 10
Delta, Ohio 43215**

Applicant

**Variance from Classification
as a Waste**

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

This Variance from Classification as a Waste (Variance) is issued to ReMuriate LLC (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, and 3745.01 and Ohio Administrative Code (OAC) rule 3745-50-23.

II. PARTIES BOUND

This Variance shall apply only to the Applicant. A successor in interest to the Applicant may submit an application for a variance under OAC rule 3745-50-23, subject to approval by Ohio EPA. 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

Unless otherwise stated, all terms used in the 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:

1. "Accepted at the Facility" means when spent pickle liquor is placed into Applicant's storage tanks.
2. "Application" means the responses to the criteria listed in OAC rule 3745-50-24(B) and supporting documents for a Variance submitted by Bailey Oxides on April 22, 2013 and amended on June 26, 2013. On October 24 and 29, 2013, further information was provided on behalf of ReMuriate, the new Applicant. Application is attached hereto and incorporated herein.

3. "Facility" means the Applicant's acid regeneration/Iron Oxide production facility, storage tanks, unloading/loading station, and associated equipment located at 6191 County Road 10 in Delta, Ohio.
4. "Hazardous Waste" or "HW" means any unusable residues, releases, Iron Oxide that is not a salable material, or Reclaimable Material that cannot be used in the reclamation process, that meet the definition of a characteristic hazardous waste, according to OAC rules 3745-51-20 to 3745-51-24, or are listed hazardous waste according to OAC rule 3745-51-03(A)(2)(e).
5. "Iron Oxide" means the by-product of the spray roasting SPL reclamation process generally having the molecular formula Fe_2O_3 . Unsalable Iron Oxide and residues from cleaning up releases of Iron Oxide, meeting the criteria in OAC rule 3745-51-03(C)(2)(b) and the application, can be disposed in a licensed solid waste landfill.
6. "Spent Pickle Liquor" or "SPL" is hydrochloric acid that has been used in the surface treatment or pickling of steel and has become depleted or contaminated to the point that it is no longer usable for this production process. SPL includes hazardous waste classified as D002 as listed in OAC rule 3745-51-22 or as K062 as defined in OAC rule 3745-51-32(A).
7. "Reclaimable Material" means SPL that is Accepted at the Facility by the Applicant and will be reclaimed by the Applicant to produce RA and Iron Oxide.
8. "Regenerated Acid" or "RA" means hydrochloric acid reclaimed from SPL.

IV. FINDINGS

The Director of Ohio EPA has determined the following findings:

1. Applicant is a person as defined in ORC section 3734.01(G) and OAC rule 3745-50-10(A).
2. SPL is generated by steel pickling operations within iron and steel industries, and the steel finishing industry. The pickling process typically uses hydrochloric acid to remove surface scale from steel in preparation for further processing. Through repeated use, pickle liquor becomes depleted or contaminated to the point it is no longer useable. The acid reclamation process restores SPL to its original characteristics for reuse by removing Iron Oxide.

3. RA produced by Applicant will be returned to steel manufacturing and fabricating facilities for reuse in the steel pickling operations. Applicant will market Iron Oxide. Iron Oxide is used by various manufacturing operations to produce products such as colorants, powder coatings, catalysts, and recording tapes.
4. Facility consists of covered truck loading and unloading areas, a tank farm consisting of twelve 40,000-gallon tanks used for storing Reclaimable Material and RA, a spray roaster, main offices and laboratory, a maintenance building, a warehouse for storing bulk Iron Oxide in bags or storage bin, an Iron Oxide milling building, a compressor building, and a truck weigh station.
5. Applicant 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. **How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;**

Iron Oxide can be produced from virgin materials by leaching scrap steel with 18% hydrochloric acid to generate a ferrous chloride solution. Using SPL as the Iron Oxide source enables Applicant to skip this step. In addition, SPL does not need to be purified of silica content. Thus Applicant does not need to purchase steel scrap and scrap steel handling equipment, and operate a leach tower to generate ferrous chloride solution.

RA produced by Applicant's spray roasting system is purchased by steel facilities at a reduced cost compared to virgin hydrochloric acid.

- b. **The extent to which the material is handled before reclamation to minimize loss;**

Transporters will deliver SPL to the Facility and return RA to iron and steel industries and steel finishing industry in compliance with applicable DOT, PUCO and other applicable federal and state transportation requirements.

Deliveries of SPL are directed to the truck loading/unloading area. Spills can be washed down to the tank farm sump, which is then pumped back into the tank farm for reclamation. Containment areas at the truck loading and unloading area and at the tank farm are incorporated. Leaks in the pump room drain into a common sump and are piped back into the reclamation system.

Facility inspections will comply with the requirements of OAC rule 3745-54-15.

An alarm system and gauges are used as further safeguards against any leaks. If operating parameters are outside of preset ranges, the plant will shut down automatically.

Ductwork for the vent system in the tank farm directs vapors under negative pressure through a wet scrubbing system. Vapors from truck loading and unloading air displacement in the tank farm are also recaptured via the wet scrubbing system. Liquids from the wet scrubbing system are piped back into the reclamation system.

The pipeline connecting Worthington Steel – Delta to the Facility is equipped with flow meters on both SPL and return of RA.

Training is provided on emergency power curtailment/emergency shutdown procedures, fire emergency response, emergency evacuation, chemical release emergency response, and the transportation security plan.

- c. **The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;**

Under normal operating circumstances, Applicant can process Reclaimable Material to reclaim RA within 24 hours of Acceptance at the Facility. Under a worst case scenario, Applicant would process Reclaimable Material to reclaim RA within 6.3 days of Acceptance at the Facility.

Time period between generating the SPL and Acceptance at the Facility, and between reclamation of RA and return to iron and steel industries and steel finishing industry will be dependent on transport distance and mode.

- d. **The location of the reclamation operation in relation to the production process;**

Applicant currently has no agreements and/or contracts in place.

- e. **Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original**

form;

Virgin hydrochloric acid is between 20% and 36% hydrochloric acid and will not exceed 0.05% metallic impurities. For use to pickle steel, virgin hydrochloric acid is diluted to about 18%. RA is between 18% and 19% hydrochloric acid and may have 0.3% to 1% iron content.

f. **Whether the person who generates the material also reclaims it; and**

Applicant does not generate SPL.

g. **Other relevant factors.**

There is virtually no waste produced in the SPL reclamation process. Rinse water, vapors captured in the wet scrubbing system, and minor spill residues can be used in the reclamation process. The acid can continuously be used and then regenerated, thus eliminating the need for iron and steel industries and steel finishing companies to purchase virgin hydrochloric acid for pickling of steel.

6. Based upon the information submitted by the Applicant in the Application, the Director finds that SPL is not waste when Accepted at the Facility for reclamation provided the SPL is 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 Reclaimable Material 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 continue to minimize loss of material and remain generally consistent and functionally equivalent to those described in the Application. In addition, Applicant shall comply with the following specific conditions:
 - a. **Cost Estimate:** Applicant must submit a detailed written estimate, according to Attachment A of this Variance, of the cost of removing any

HW and decontaminating the units and areas used to store HW.

- b. **Financial Assurance Mechanism:** Applicant shall, within 30 days after issuance of this Variance, establish financial assurance in compliance with OAC rule 3745-55-43 and provide to Ohio EPA documentation of financial assurance which meets the wording requirements of OAC rule 3745-55-51, in at least the amount of the estimate, according to Section V.2.a. of this Variance, to remove HW and decontaminate the units and areas used to store HW. Applicant shall maintain continuous compliance with Section V.2.b. of this Variance and OAC rules 3745-55-43 and 3745-55-51 throughout the term of this Variance.

Note: For the purposes of complying with the financial assurance and cost estimate conditions of this Variance, the following terms shall be read in OAC rules 3745-55-43 and 3745-55-51 as defined below:

- i. "Closure" shall mean "removal and decontamination."
 - ii. "Hazardous waste" shall mean "Hazardous Waste."
 - iii. "Owner/operator" shall mean "Applicant."
 - iv. "Facility" shall mean "Facility."
- c. **Removal and Decontamination Plan (RDP):** Applicant shall, within 30 days after issuance of this Variance, prepare and submit to Ohio EPA a Removal and Decontamination Plan (RDP) for all areas of the Facility where HW was managed, stored, and reclaimed. The RDP shall meet the requirements of OAC rules 3745-66-11(A) and (B), 3745-66-14, and 3745-66-97. The RDP shall also address the management and disposal of soils contaminated with released Reclaimable Material and Iron Oxide that are generated during cleanup that are not otherwise addressed in the application. Applicant may use the Ohio EPA Policy "Closure Plan Review Guidance for RCRA Facilities" to prepare the RDP.
- d. **Bill of Lading/Manifest System:** Applicant shall:
- i. Sign the bill of lading/manifest and comply with OAC rule 3745-65-71 *Use of manifest system*, regarding the manifest. Each bill of lading/manifest shall be retained on-site at the Facility for three years.

- ii. Comply with OAC rule 3745-65-76 *Unmanifested waste report*, when Reclaimable Material is Accepted at the Facility not accompanied by a hazardous waste manifest. This paragraph does not apply if the generator has received a variance from classification as a waste for SPL.
- e. **Acceptance Criteria:** Applicant shall only Accept at the Facility for reclamation Reclaimable Material that contains at least 10% w/v ferrous chloride.
- f. **Rejected SPL or Reclaimable Material:** SPL or Reclaimable Material that is rejected by Applicant shall be returned as soon as possible to the supplier, transported to a permitted hazardous waste storage, treatment, or disposal facility, or sent for legitimate recycling. The rejected SPL or Reclaimable Material must be managed as hazardous waste in accordance with all applicable Ohio EPA hazardous waste laws. Applicant may assume generator duties for the purpose of completing the manifest.
- g. **Hazardous Waste:** Applicant shall determine what materials are HW and manage such HW in accordance with ORC Chapter 3734 and the hazardous waste management rules promulgated thereunder.
- h. **Arrival of Transport Vehicles:** Applicant shall not stage, hold, or store SPL in transport vehicles for longer than 8 hours after the vehicle arrives at the Facility prior to Acceptance at the Facility.
- i. **Maintenance of Plans and Documents:** Applicant shall maintain and revise as necessary the emergency response plan and the best management practices document, both included in Appendix B of the Application, so long as the plan and document continue to assure minimal loss of material and remain generally consistent and functionally equivalent to those described in the Application.
- j. **Emergency Response:** Applicant shall implement as necessary the emergency response plan included in Appendix B of the Application.
- k. **Inspection:** The Facility, or areas thereof, shall be inspected a minimum of once each seven days. The exterior of all storage tanks containing Reclaimable Material or Regenerated Acid shall be inspected daily for signs of damage or deterioration.
- l. **Training:** Each employee handling Reclaimable Material shall be trained

on compliance with the Variance within the following timeframes:

- i. Within six months after their employment or assignment to the Facility, or to a new position at the Facility.
 - ii. Annual review, not to exceed fifteen months from the previous review.
- m. **Equipment Maintenance:** Applicant shall maintain in good working order the equipment used to store, handle, convey, contain, and reclaim Reclaimable Material. The equipment includes but is not limited to: tank system (includes tanks, secondary containment, and piping), Reclaimable Material unloading area, sumps, piping and conveying systems, and reclamation unit and the associated equipment.
- n. **Recordkeeping:** Applicant shall record and retain, for three years, the following documentation:
- i. For each incoming load of SPL:
 1. Analysis.
 2. Supplier.
 3. If Accepted at the Facility, the amount and the time between arrival at the Facility and Acceptance at the Facility.
 4. If the load was rejected.
 - ii. Analysis of RA.
 - iii. Amount of RA produced and amount distributed to persons who operate steel pickling operations.
 - iv. Amount of Iron Oxide produced, sold, and disposed by Applicant.
 - v. Amount of SPL disposed by Applicant.
- o. **Reporting:** By March 1st of each odd numbered year, Applicant shall prepare a biennial report; the first report will be due March 1st 2015. Applicant shall submit the report to Ohio EPA, in accordance with Section XIII of this Variance, in a paper report format of Applicant's choice or an electronic format agreed upon by the Applicant and Ohio EPA. The report

shall include the following information for the two year period:

- i. For each supplier, the amount of Reclaimed Material Accepted at the Facility and the amount of SPL rejected.
 - ii. Amount of RA produced and amount distributed to persons who operate steel pickling operations.
 - iii. Amount of RA rejected by Applicant's customers and the reasons why.
- 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, 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 either of the following is applicable:
- i. 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 this 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 event described in Section XI, Paragraph 1. occurs.
- r. **RDP Update:** Within 30 days after the date of an event described in Section XI, Applicant shall update and submit to Ohio EPA the Removal and Decontamination Plan (RDP) for all areas of the Facility where HW was managed, stored, and reclaimed.
- s. **RDP Review and Authorization:** The RDP is subject to Ohio EPA review and authorization. Applicant shall submit the RDP to Ohio EPA according to Section XIII. If Ohio EPA does not authorize the RDP and provides Applicant with a written statement of deficiencies, Applicant shall revise the RDP or submit a new RDP for authorization that corrects the stated deficiencies within 30 days after receipt of such written statement. Ohio EPA may authorize the RDP with modifications. If Ohio EPA

modifies the RDP, the modified RDP becomes the authorized RDP.

- t. **RDP Implementation:** Upon receipt of the authorized RDP, Applicant shall implement the authorized RDP and complete RDP activities within 180 days.
- u. **RDP Certification:** Within 30 days after completion of work required by the authorized RDP, Applicant shall submit to Ohio EPA, for review and concurrence, a certification that the work was conducted in accordance with the authorized RDP. The certification must be signed by Applicant and include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

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 RDP. If, after inspection and review of the Facility, Ohio EPA does not conclude that the Facility meets the conditions of the certified RDP, it shall deem the "certified" RDP invalid and cleanup of the Facility inadequate.

- v. **Invalidated RDP:** Within 30 days of notice that the "certified" RDP is invalid, Applicant shall prepare and submit a revised RDP to Ohio EPA indicating how it intends to correct the deficiencies or problems. Upon receipt of authorization of the revised RDP, Applicant shall, within 45 days, implement the revised RDP 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.

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 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 SITE

Applicant shall provide Ohio EPA with access to the Facility, at all reasonable times, including during normal business hours. 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.
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

The following are causes for revoking this Variance during its term:

1. Noncompliance by the Applicant with any condition of this Variance.
2. 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.
3. A determination that the Facility is operated in a manner that endangers human health or the environment.

XI. TERMINATION

Unless otherwise terminated by the Director, this Variance shall terminate ten years after the effective date of this Variance, or when either of the following events occurs:

1. Applicant or transferee no longer owns or operates the Facility.
2. Director revokes the 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. Modifications that are of the nature of a Class 1 permit modification, as

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. Modifications that are of the nature of a Class 1 permit modification, as described in OAC rule 3745-50-51, may be authorized by letter from the Chief of the Division of Materials and Waste Management and are not a final action of the Director.

XIII. NOTICE

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

Ohio Environmental Protection Agency
Northwest District Office
Division of Materials and Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
Attn: DMWM Manager

and Ohio EPA Central Office at the following address:

For mailings

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Materials and Waste
Management
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Materials and Waste
Management
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 and Applicant each reserve all rights, privileges, and causes of action, except as specifically waived in Section XV. of these Orders.

XV. WAIVER

Without admission of any of the findings made under this Variance, 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



Craig W. Butler
Director

8/8/14

Date

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IT IS SO AGREED:

ReMuriate LLC



Signature

17 July 2014

Date

PAUL CAEUS

Printed or Typed Name

PRESIDENT

Title

ATTACHMENT A: Financial Requirements for Applicant

Cost estimate.

- (a) Applicant must have a detailed written estimate, in current dollars, of the cost of disposing of HW, and the cost of decontaminating the units and areas where HW was stored.
 - (1) The estimate must equal the cost of conducting the activities described in paragraph (a) of this section at the point when the extent and manner of Applicant's operation would make these activities the most expensive.
 - (2) The cost estimate must be based on the costs to Applicant of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of Applicant.
 - (3) The cost estimate may not incorporate any salvage value that may be realized with the sale of HW, facility structures or equipment, land, or other assets associated with the Facility, with the exception described in paragraph (4) of this section.
 - (4) Applicant may incorporate a zero cost for RA and Iron Oxide that might have economic value.

- (b) During the active life of the Facility, Applicant must adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with OAC rule 3745-55-43. If using the financial test or corporate guarantee, the cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the director as specified in OAC rule 3745-55-43(F)(3). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b) (1) and (2) of this Attachment. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.
 - (1) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.
 - (2) Subsequent adjustments are made by multiplying the latest adjusted cost

estimate by the latest inflation factor.

- (c) During the active life of the Facility, Applicant must revise the cost estimate no later than 30 days after a change in Applicant's operating plan or design that would increase the costs of conducting the activities described in paragraph (a) or no later than 60 days after an unexpected event which increases the cost of conducting the activities described in paragraph (a) of this section. The revised cost estimate must be adjusted for inflation as specified in paragraph (b) of this section.
- (d) Applicant must keep the following at the Facility during the operating life of the facility: The latest cost estimate prepared in accordance with paragraphs (a) and (c) and, when this estimate has been adjusted in accordance with paragraph (b), the latest adjusted cost estimate.