



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
Division of Solid Waste Management  
Fifth Floor, L&C Tower  
401 Church St.  
Nashville, Tennessee 37243-1535

May 12, 2011

Ms. Hollie Binkley  
Environmental Health & Safety Director  
Jarden Zinc Products, LLC  
P. O. Box 1890  
Greenville, TN 37744-1890

**CERTIFIED MAIL RECEIPT**  
**7005 1820 0001 5863 5359**

RE: Tentative Solid Waste Variance Approval  
Copper Rich Waste Water Treatment Residue  
Jarden Zinc Products, LLC  
TND 05-398-3862

Dear Ms. Binkley:

Evaluation of Jarden's data associated with Jarden Zinc Product's (Jarden) Jarden's March 17, 2011, request for consideration of the variance from classification as a Solid Waste as found at Rule 1200-01-11-.01(4)(b)3(i-vi) has been completed. The variance is specific for "materials that have been reclaimed, but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). The original variance approval for this material was approved on November 30, 1998.

Jarden is granted a tentative variance for the copper bearing wastewater treatment sludge. Jarden's submitted information has clearly demonstrated that the material in question is a reclaimed copper rich sludge precipitated from wastewater treatment activities. It has been demonstrated that the treated sludge contains copper concentrations such that there are recoverable metallic copper concentrations normal to recovery by smelting processes. Reclamation, beyond the production of the dried metallic sludge, is necessary to reclaim the recoverable metal(s).

The Division is in agreement with the United States Environmental Protection Agency (EPA) decision, found at 50 FR 639 (January 4, 1985), that dewatering of wastewater treatment sludge can be considered as a form of reclamation. The information submitted by Jarden, demonstrates, in this specific case, that Jarden has initiated reclamation of a material that requires further reclamation to allow effective recovery of the copper metals.

Jarden has demonstrated compliance with the evaluation factor associated with the degree of processing the material has undergone and further reclamation activities, smelting, is required to complete the reclamation recycling process. Jarden has further demonstrated, through analytical analysis and documentation, that copper concentrations from the sludge are significantly greater than that found in copper ores. Typical dry weight ore metal concentrations are approximately 1-3%. Jarden's copper analysis indicates that copper metal concentrations are found at approximately 14% (wet basis) or 33% (dry basis). Review of EPA guidance associated with this reclamation exclusion indicates that a 2% dry weight concentration is the recommended minimum concentration for exclusion consideration. Jarden has successfully established "the degree to which the reclaimed material is like an analogous raw material."

Copper metals have a known variable commercial value and are considered as valid commodities. Jarden has identified that a market for the reclaimed materials exists, and has identified that Total Metal Recycling (Total) of Granite City Illinois and Phelps Dodge Miami, Inc., Claypool, Arizona will serve as the brokers for both reclamation and recycling services. Jarden indicates that Total and Phelps Dodge are also tasked with material tracking responsibilities. Jarden has therefore successfully established that there is a market and a value for the reclaimed/recycled materials.

Jarden has submitted information that it manages these waste materials to minimize material loss associated with packaging, storage and shipment activities. The copper filter cake is placed in one cubic yard liner super sacks for storage and transportation. Each lined container is labeled to conform with appropriate safety and transportation regulations. MSDS's are also provided with each shipment. Jarden has demonstrated that the reclaimed materials are handled so as to minimize loss and are treated as a "commodity", rather than a waste.

Jarden is granted this tentative variance with the following conditions:

1. Jarden continues to handle and transport the materials in a manner consistent with a commodity like status, i.e., the material will be packaged, stored, transported, and labeled in a manner that prevents loss or spills;
2. Jarden will retain documentation associated with waste characterization analysis, materials composition and specification analysis, and materials shipment number and destination confirmations. These records are to be retained at the facility for five (5) years. Jarden has recognized that failure to meet reclamation/smelting materials specification requirements will require that the material be subject to RCRA requirements as a hazardous F006 listed waste.
3. Jarden will retain copies of (primary broker) contracts between Jarden and Total and Phelps Dodge involved in all material transactions. These records are to be retained on site for five (5) years.

4. Jarden will inform the Division within 30 days of any changes in the process, brokers, or corporate ownership which will be evaluated by the Division as to the effect on the exclusion status.

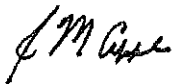
Jarden is aware of the responsibility to meet the conditions associated with public notification as found at 1200-1-11-.01(4)(c)2 before award of a final exclusion.

This review has been completed give the information provided and is solely limited to this specific facility. The Division reserves the right to revisit this issue if new information becomes available that is pertinent to this review but should closely coordinate with the facility if any further review is recommended. Facilities are also encouraged to review their waste and recycling processes on at least an annual basis to consider any process or regulatory changes that may occur.

The Division commends the success of Jarden's existing reclamation/recycling activities associated with copper recovery processes and applauds the continued recycling awareness and efforts as demonstrated by this exclusion request.

Comments and questions concerning this tentative variance approval should be directed to Mr. Joe Putnam at (615) 532-0882 or Joe.Putnam@tn.gov or Mr. David Jarrett at (615) 532-0295 or DavidJarrett@tn.gov. Questions associated with public notice activities should be directed to our Public Notice Coordinator, Mrs. Mary Evans at (615) 532-0798.

Sincerely,



Mike Apple  
Director

cc:     Garey Mabry  
        Robert Nakamoto  
        Joe Putnam  
        David Jarrett  
        Fred Willingham  
        Rick Whitson  
        Nina Vo  
        Dennis Woodson  
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