

ILLINOIS POLLUTION CONTROL BOARD  
May 6, 1999

IN THE MATTER OF: )  
)  
PETITION OF BIG RIVER ZINC ) AS 99-3  
CORPORATION FOR AN ADJUSTED ) (Adjusted Standard - RCRA)  
STANDARD UNDER 35 ILL. ADM. CODE )  
720.131(c) )

ORDER OF THE BOARD (by K.M. Hennessey):

On April 15, 1999, the Board granted petitioner Big River Zinc Corporation (BRZ) an adjusted standard, subject to certain conditions. On April 28, 1999, BRZ moved the Board to reconsider its decision. BRZ also moved the Board to decide the motion to reconsider at the Board's May 6, 1999 meeting. On May 5, 1999, the Illinois Environmental Protection Agency (IEPA) filed a response to the motion to reconsider.

The Board grants BRZ's motion to decide this matter today. The Board also grants BRZ's motion to reconsider and sets forth in this order the modified terms of BRZ's adjusted standard.

BACKGROUND

The Board's findings of fact and conclusions of law are set forth in its opinion of April 15, 1999 and are incorporated here by reference. Below, the Board highlights the facts and proceedings relevant to BRZ's motions.

BRZ operates an electrolytic zinc refinery in Sauget, St. Clair County, Illinois. BRZ uses various zinc-containing materials as feedstock for its refinery. BRZ sought an adjusted standard because it wants to use a zinc-containing material recovered from dust emitted from electric arc furnaces used to produce steel. This secondary zinc oxide material would ordinarily be considered a "solid waste" and a "hazardous waste" under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 *et seq.*, and corresponding Illinois laws and regulations. BRZ wants to use this secondary zinc oxide material without becoming subject to Illinois' hazardous waste requirements.

To that end, BRZ filed a petition for an adjusted standard under 35 Ill. Adm. Code 720.131(c). Section 720.131(c) allows the Board to determine that certain materials are not solid wastes if they meet certain criteria. The status of materials as "solid wastes" is significant because under the laws and regulations that Congress and the United States Environmental Protection Agency have established, only those materials that are "solid wastes" can be regulated as "hazardous wastes" under RCRA and corresponding Illinois laws and regulations. Those laws and regulations impose various requirements on persons who generate, treat, store, dispose, recycle, or transport hazardous waste. See 35 Ill. Adm. Code

722-726, 728. Materials that are not solid wastes are not subject to Illinois' hazardous waste regulations.

The secondary zinc oxide material for which BRZ sought an adjusted standard is recovered from electric arc furnace dust (EAF dust) by a high temperature metals recovery (HTMR) process. The Board refers to this material as "EAF zinc oxide." BRZ also proposed several conditions on the adjusted standard. IEPA recommended that the Board grant the adjusted standard, subject to the conditions that BRZ proposed.

In its April 15, 1999 opinion, the Board found that BRZ established that EAF zinc oxide is not a solid waste. The Board therefore granted BRZ's petition for an adjusted standard, but modified the conditions that BRZ had proposed.

#### MOTION TO EXPEDITE

BRZ moves the Board to decide the motion to reconsider at the Board's May 6, 1999 meeting. Motion to Expedite (Mot. Exp.) at 4. BRZ attached the sworn affidavit of George Obeldobel, President of BRZ (Affidavit), to both the motion to reconsider and the motion to expedite. BRZ is scheduled to begin receiving shipments of EAF zinc oxide on May 11, 1999. Affidavit at 4. BRZ states that its business relationships with its suppliers will be threatened if the Board does not modify the adjusted standard before that date. Mot. Exp. at 3.

The Board's resources permit it to address BRZ's motion to reconsider at the Board's May 6, 1999 meeting. Accordingly, the Board grants the motion to expedite and below rules on BRZ's motion to reconsider.

#### MOTION TO RECONSIDER

BRZ moves the Board to reconsider its April 15, 1999 decision in this matter. Motion to Reconsider (Mot. Rec.) at 1. Specifically, BRZ asks the Board to modify a condition of the adjusted standard that the Board granted to BRZ. *Id.* at 15. The adjusted standard reads as follows:

1. The Board finds that zinc oxide material produced by subjecting electric arc furnace (EAF) dust from the primary production of steel (K061 under 35 Ill. Adm. Code 721.132) to a high temperature metals recovery (HTMR) process is not a solid waste and grants Big River Zinc Corporation (BRZ) an adjusted standard under 35 Ill. Adm. Code 720.131(c).
2. The adjusted standard is subject to the following conditions:
  - a. The determination described in paragraph one of this order applies only to zinc oxide material:

- (1) that is to be processed through BRZ's electrolytic zinc refinery in Sauget, St. Clair County, Illinois;
  - (2) that is in Illinois;
  - (3) that has arrived at BRZ's Sauget, St. Clair County, Illinois facility or that is under a legally binding contract for sale to BRZ; and
  - (4) that meets the following specifications by weight:
    - (a) > 50% zinc;
    - (b) < 20% lead;
    - (c) < 5% iron (or < 7% iron in material produced by an HTMR unit during the first three months that the HTMR unit produces zinc oxide material from EAF dust from the primary production of steel (K061 under 35 Ill. Adm. Code 721.132));
    - (d) < 4% total gangue materials (silica plus calcium plus magnesium); and
    - (e) < 13% chloride;
- b. BRZ must maintain records that document the sources of all zinc oxide material that BRZ accepts under this adjusted standard;
  - c. BRZ must maintain records that demonstrate that each shipment of zinc oxide material that BRZ accepts under this adjusted standard meets the specifications set forth in paragraph 2(a)(4) of this order; for this demonstration, representative samples of each shipment of zinc oxide material must be collected, composited, and tested in accordance with generally accepted practices, such as those specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (Third Edition); and
  - d. BRZ must maintain the records required under paragraphs 2(b) and 2(c) of this order for a period of three years and must make such records available for inspection and copying at any reasonable time during normal business hours upon the Illinois Environmental Protection Agency's request.

In Re Petition of Big River Zinc Corporation (April 15, 1999), AS 99-3, slip op. at 18-19.

BRZ takes exception to the sampling requirements of paragraph 2(c) of the adjusted standard. In particular, BRZ asks the Board to amend this provision so that each shipment of EAF zinc oxide need not meet the specifications of paragraph 2(a)(4). Rather, BRZ proposes to determine compliance with the specifications based on a monthly composite of shipment samples. Mot. Rec. at 4, 15.

The Board notes that BRZ previously proposed sampling based on monthly averages. See Big River Zinc, AS 99-3, slip op. at 15. However, as the Board noted in its April 15, 1999 opinion, BRZ failed to adequately explain how its proposal would work. Specifically, BRZ failed to explain how it would composite samples and whether samples from different producers would be composited together or separately. In addition, BRZ proposed blending shipments that exceeded the specifications with other materials “such that the blended materials meet the specifications,” but failed to explain how it would determine whether the blended materials meet the specifications. *Id.* at 16.

BRZ now explains that it proposes to sample each truckload, barge, railcar, or supersack of EAF zinc oxide that arrives at its facility. Mot. Rec. at 2, 5-7; Affidavit at 2-3. BRZ states that it would test a supplier-specific composite on a monthly basis for each supplier to determine compliance with the specifications. *Id.* BRZ states that it uses this sampling and testing approach for its mined zinc sulfide concentrates. Mot. Rec. at 2, 6-7; Affidavit at 2.

BRZ asserts that the requirement that each shipment of EAF zinc oxide meet the specifications is cost-prohibitive. Mot. Rec. at 8; Affidavit at 3. BRZ states that AmeriSteel, Inc. (AmeriSteel), which is expected to be a primary supplier to BRZ, and others like it would have to send samples off-site for testing. According to BRZ, these suppliers would have to hold the shipments for several days to await test results, resulting in demurrage fees. BRZ states that the off-site testing fees and demurrage fees would represent a significant portion (20-40%) of the value of the EAF zinc oxide. Mot. Rec. at 9-10; Affidavit at 3. For these reasons, BRZ concludes that the requirement that each shipment meet the specifications will prevent BRZ from purchasing EAF zinc oxide from its prospective suppliers. Mot. Rec. at 2-3, 5, 8; Affidavit at 3.

BRZ states that it can process an occasional shipment of inferior product and that it will ensure that all EAF zinc oxide received is processed. Affidavit at 3. BRZ states that if a supplier continues to provide inferior product, “BRZ will terminate its contract with its supplier and process whatever product remains.” *Id.*

In its response, IEPA notes that while the Board’s conditions were more strict than those that BRZ proposed, and IEPA agreed to, the Board’s conditions were not without basis. IEPA Response (Resp.) at 3. IEPA believes, however, that if “process and [supplier] QA/QC [Quality Assurance/Quality Control] standards are met and consistently followed, that should

ensure a consistent product and less frequent sampling of actual content would be acceptable.” *Id.* at 4. IEPA also suggests that the Board define shipment as a production cycle, or on a rolling average, rather than an individual truck or railcar. *Id.* IEPA also proposes that the Board permit BRZ to blend only within the same shipment. *Id.* IEPA further suggests that the Board allow “a reduction in the sampling frequency based on the generator’s ability to use QA/QC procedures to produce consistently on-specification material.” *Id.* at 5. It is not clear whether IEPA believes the material should be tested before or after it is shipped.

The Board notes that BRZ proposed the specifications as a condition of the adjusted standard. However, as noted above, the Board found that BRZ’s proposed conditions, as interpreted by BRZ, were potentially unenforceable. Accordingly, the Board crafted enforceable conditions to address specifications and sampling. While BRZ now has clarified its proposal, BRZ’s interpretation of its proposed conditions remains problematic.

These problems arise because BRZ continues to propose that the specifications be a condition of the adjusted standard. But BRZ will not know, until the end of the testing period, whether the material it has already received meets the required specifications on an average basis. If the material fails to meet the specifications, the adjusted standard would not apply to the material and the material would be considered a hazardous waste. In that situation, BRZ would have violated Illinois hazardous waste laws and regulations. For these reasons, BRZ’s proposed condition is not workable.

Accordingly, the Board will take a different and more workable approach. The Board already has found that AmeriSteel’s EAF zinc oxide meets specifications necessary for BRZ to process the material economically. See Big River Zinc, AS 99-3, slip op. at 14. Other HTMR processes are capable of producing a similar quality material. Hearing Exhibit 3 at 10, Attachment H. The Board further finds that BRZ plans to process all EAF zinc oxide that it receives and that if a supplier consistently provides an inferior product, BRZ would terminate its contract with that supplier. Affidavit at 3. Limiting the scope of the adjusted standard to EAF dust that has been processed by HTMR and that is to be processed through BRZ’s electrolytic zinc refinery, as the Board did in its April 15, 1999 order, is an adequate proxy for the monthly average specifications. Accordingly, the Board will delete the condition regarding specifications from the adjusted standard. The Board also will modify the adjusted standard to clarify that it applies only to EAF zinc oxide that will undergo BRZ’s electrolytic zinc refining process. The Board also will make other minor changes to the terms of the adjusted standard for clarification.

The Board took a similar approach in In re Petition of Recycle Technologies, Inc. (September 3, 1998), AS 97-9. In that case, the Board granted an adjusted standard under Section 720.131(c) to a petitioner that processed used automotive antifreeze. The Board did not impose a condition regarding specifications, but did limit the scope of the adjusted standard to used automotive antifreeze that the petitioner had processed in a specific manner and would further process in a specific manner. See Recycle Technologies, AS 97-9, slip op. at 12.

However, the Board does believe it necessary, as IEPA suggests, that BRZ sample and test the materials it receives. BRZ has already proposed that the adjusted standard require it to do so, and this information would allow IEPA to assess whether BRZ is indeed processing material that is EAF dust that has undergone HTMR processing. Accordingly, the Board will require BRZ each month to take representative samples of the material it receives from each supplier and composite the samples on a supplier-specific basis. BRZ must test each composite sample on a monthly basis, and maintain records of sampling and test results for three years and make those records available for IEPA to inspect.

The Board grants BRZ's motion to reconsider and grants BRZ the following amended adjusted standard:

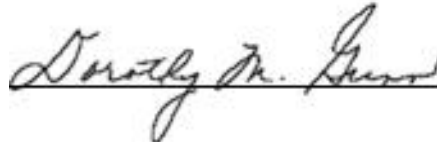
1. The Board finds that zinc oxide material produced by subjecting electric arc furnace (EAF) dust from the primary production of steel (K061 under 35 Ill. Adm. Code 721.132) to a high temperature metals recovery (HTMR) process is not a solid waste and grants Big River Zinc Corporation (BRZ) an adjusted standard under 35 Ill. Adm. Code 720.131(c).
2. The adjusted standard is subject to the following conditions:
  - a. The determination described in paragraph one of this order applies only to zinc oxide material:
    - (1) that will undergo BRZ's electrolytic zinc refining process at its facility in Sauget, St. Clair County, Illinois;
    - (2) that is in Illinois; and
    - (3) that has arrived at BRZ's Sauget, St. Clair County, Illinois facility or that is under a legally binding contract for sale to BRZ;
  - b. BRZ must maintain records identifying the suppliers of all zinc oxide material that BRZ accepts under this adjusted standard;
  - c. Each month, BRZ must take representative samples of the zinc oxide material that it accepts from each supplier and composite the samples on a supplier-specific basis. BRZ must test each composite sample on a monthly basis to determine the percentage by weight of zinc, lead, iron, total gangue materials (silica plus calcium plus magnesium), and chloride in the sample. Each sample must be collected and tested in accordance with generally accepted practices, such as those specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (Third Edition); and

- d. BRZ must maintain records of the information required in paragraphs 2(b) and 2(c) of this order for a period of three years and must make them available for the Illinois Environmental Protection Agency (IEPA) to inspect and copy at any reasonable time during normal business hours upon IEPA's request.

IT IS SO ORDERED.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1996)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of service of this order. Illinois Supreme Court Rule 335 establishes such filing requirements. See 172 Ill. 2d R. 335; see also 35 Ill. Adm. Code 101.246, Motions for Reconsideration.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the 6th day of May 1999 by a vote of 7-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", written over a horizontal line.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board