

RECEIVED  
CLERK'S OFFICE

AUG 27 1999

STATE OF ILLINOIS  
Pollution Control Board

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:

Petition of Horsehead Resource )  
Development Company, Inc. for an ) AS 00-02  
Adjusted Standard Under 35 Ill. ) (Adjusted Standard-RCRA)  
Adm. Code 720.131(c) )

NOTICE OF FILING

To: Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board  
100 W. Randolph Street  
11<sup>th</sup> Floor  
Chicago, IL 60601

Mr. John N. Moore  
200 North LaSalle Street  
Suite 2200  
Chicago, IL 60601

Mr. Paul E. Gutermann  
Akin, Gump, Strauss, Hauer & Feld  
1333 New Hampshire Avenue, N.W.  
Suite 400  
Washington, DC 20036

Mr. Robert Lawley  
Illinois Department of Natural Resources  
524 South Second Street  
Springfield, IL 62701

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the Illinois Environmental Protection Agency's RESPONSE, a copy of which is attached hereto and served upon you.

  
Peter E. Orlinsky

Date: AUGUST 27, 1999

Illinois Environmental Protection Agency  
Division of Legal Counsel  
1701 S. First Avenue, Suite 600  
Maywood, IL 60153  
708-338-7890

LEO pgb ner

THIS FILING IS SUBMITTED ON RECYCLED PAPER

AUG 27 1999

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

STATE OF ILLINOIS  
*Pollution Control Board*

IN THE MATTER OF )  
 )  
PETITION OF HORSEHEAD RESOURCE ) AS 00-02  
DEVELOPMENT COMPANY, INC. FOR AN ) (Adjusted Standard-RCRA)  
ADJUSTED STANDARD UNDER 35 ILL. )  
ADM. CODE 720.131(c) )

RESPONSE OF THE ILLINOIS EPA TO  
PETITION FOR ADJUSTED STANDARD

Pursuant to 35 Ill. Adm. Code 106.414, the Illinois Environmental Protection Agency ("Illinois EPA"), through its attorneys, hereby submits this Response to the Petition of Horsehead Resource Development Company for an Adjusted Standard Under 35 Ill. Adm. Code 720.131(c) ("Petition"), filed before the Illinois Pollution Control Board ("Board"), and states as follows

I. BACKGROUND

In its Petition, Horsehead Resource Development Company, Inc. ("HRD"), a recycler of inorganic hazardous wastes, requests a determination by the Board that the crude zinc oxide ("CZO") which it produces at its Chicago facility is not a solid waste. HRD receives electric arc furnace ("EAF") dust from steel mills. The EAF dust and small quantities of other metal bearing feedstocks along with a carbon source are introduced into a high temperature metal recovery ("HTMR") process. During the HTMR process the nonferrous metals are concentrated to form CZO. The CZO is then shipped off-site by railcar.

II. APPLICABILITY OF SECTION 720.131(c)

The terms of the adjusted standard require that a hazardous waste be partially reclaimed, and sufficiently "commodity-like" after initial reclamation. A material must be a RCRA hazardous waste to be eligible for this solid waste determination. The materials involved in this transaction appear to be within the category eligible for the requested adjusted standard. EAF dust is a listed hazardous waste under 35 Ill. Adm. Code 721.132, carrying the code K061. The Petition describes the CZO production process as an HTMR system which, through the application of heat in a rotary hearth furnace, substantially raises the percentage of zinc in the EAF dust. This appears to meet the definition of "reclamation" of 35 Ill. Adm. Code 721.101(c)(4), since it is being processed to recover usable product, zinc. For the same reason, it is also consistent with the United States Environmental

Protection Agency's explanation of the term "reclamation" in the Federal Register. See 50 Fed. Reg. 614,633 (January 5, 1985). Based on the information presented in the Petition, the materials for which the adjusted standard is sought appear to be eligible for consideration under Section 720.131(c).

## II EVALUATION OF FACTORS UNDER SECTION 720.131(c)

After a determination that the material are generally eligible for the adjusted standard, the Illinois EPA will evaluate the proposal in the Petition using the factors set forth in Section 720.131(c):

- 1) The degree of processing the materials has undergone and the degree of further processing that is required.
- 2) The value of the material after it has been reclaimed.
- 3) The degree to which the reclaimed material is like an analogous raw material.
- 4) The extent to which an end market for the reclaimed material is guaranteed.
- 5) The extent to which the reclaimed material is handled to minimize loss.
- 6) Other relevant factors.

### A. Degree of Processing

Section 720.131(c)(1) requires consideration of the degree of processing initially performed and that further required. The more substantial the initial processing, the more completely reclaimed the material is, and, hence the more commodity-like the material. In this instance, the HTMR processing, which exposes the material to high temperatures in a rotary hearth furnace, substantially changes the content of the material. The Petition states that the zinc is concentrated from approximately 15% in the feedstock to approximately 60% in the resultant CZO. The Petition also states that the process reduces the mass of the feedstock by approximately two thirds. After the CZO is produced, only a relatively small amount of additional processing is necessary to produce zinc products

### B. Value after Reclamation

Under Section 720.131(c)(2) the value of the material after reclamation is a factor in the decision as to whether to grant an adjusted standard. The higher the value of the material, and the closer that value is to the value of the raw material it supplements or replaces, the more likely it is to be considered community-like.

The Petition includes confidential data which compares the approximate transaction prices of CZO sold by HRD with the appropriate transaction price of zinc concentrate produced from mined zinc ore. Since the information is confidential, it will not be cited in this response. It is sufficient, however, to state that the Illinois EPA believes that the sales price for CZO is in the same general range as that of the sales price for zinc concentrate.

#### C. Comparison with Raw Material

Section 720.131(c)(3) requires consideration of the comparison of the materials to be reclassified by this adjusted standard with the raw material. The closer the material is to the raw material that it supplements or replaces the more likely it is to be commodity-like.

The materials to be compared are zinc concentrates from mined ore and CZO which is partially reclaimed EAF dust. The percentages of zinc, iron, and lead in zinc concentrates and CZO are very similar. However, the percentage of chlorine present in CZO is considerably higher than that occurring in zinc concentrates. The Illinois EPA requests that HRD comment on whether the higher chlorine content poses any pollution control problems not inherent in the processing of mined zinc.

#### D. End Market

The extent to which an end market is guaranteed is a factor for consideration under Section 720.131(c)(4). The stronger the market, the more likely the material is to be commodity-like. The regulations do not specifically state whether the market to be considered is the market for the material after initial reclamation or for the products produced after reclamation is complete. USEPA commentary indicates that the principle concern is with the market after initial reclamation. 50 Fed. Reg. 614,655 (January 4, 1985).

Historically, most EAF dust was disposed of as a waste. However, markets are now developing as alternatives to disposal are being explored. HRD makes a point that since it began producing CZO at its Chicago facility, it has never had to stockpile any of the CZO because it has contracts for all that it produces. HRD also states that all of its buyers process the CZO immediately upon receipt. Given those facts, the Illinois EPA believes that end markets for CZO appear to be guaranteed.

#### E. Minimization of Loss

Section 720.131(c)(5) requires consideration of the methods employed to minimize loss of the material during handling. This factor goes toward two considerations. First, when a material is handled carefully so as to prevent loss, this tends to indicate that the material has value. Second, the methods implemented to prevent loss can reduce the potential negative environmental consequences due to possible releases of the material which would have been considered a hazardous waste absent the adjusted standard.

HRD minimizes loss by the following means:

1. All unloading and conveying operations are enclosed and controlled by Illinois EPA permitted baghouses.
2. The HTMR processing produces no wastes and no water discharges.
3. After the process is completed, the CZO is transferred to railcars in an enclosed, pressurized system.
4. The off-site transportation of CZO must comply with U.S. Department of Transportation regulations.

The Illinois EPA believes that HRD does employ satisfactory means to minimize loss. However, it is suggested that HRD should address its procedures for dealing with accidental spills, ruptured baghouses, or other environmental concerns.

#### F. Other Factors

Section 720.131(c)(6) allows the consideration of other relevant factors. In its Petition, HRD discusses the precedential value of other adjusted standard/variance rulings and the desirability of resource recovery and waste minimization.

The Illinois EPA agrees that the administration proceedings cited by HRD have strong precedential value. This is especially true in the adjusted standard petition of Big River Zinc Corporation ("BRZ") AS 99-3. In that proceeding, the Board granted BRZ's request for an adjusted standard under Section 720.131(c) for a CZO material produced from EAF dust. Since the relief sought by BRZ is virtually the same as the relief sought by HRD, it is assumed that the Board will give much weight to its prior decision.

- G. The Illinois EPA also agrees that when it can be done in an environmentally sound manner, the recycling of hazardous wastes should be encouraged. Such recycling efforts result in conservation of natural resources and the reduction of hazardous waste disposal.

#### IV RECOMMENDATION

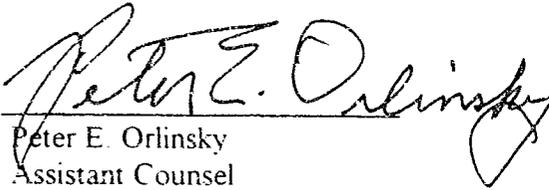
Based upon the information presented in its Petition, it appears that HRD has demonstrated that the CZO which it produces is within the category of hazardous wastes which are eligible for an adjusted standard pursuant to 35 Ill. Adm. Code 720.131(c). HRD has provided information which shows that the EAF dust has undergone the majority of reclamation during the HTMR process; that the CZO has significant value; that the constituents of CZO are similar to zinc concentrates from mined ore; that there is a market for CZO; and that the CZO is handled to minimize loss. Additionally,

HRD has explained why the relief it is seeking is similar to the relief granted by the Board to BRZ.

The Illinois EPA has posed some questions to HRD in this Recommendation. Assuming that HRD answers those questions to the Illinois EPA's satisfaction and supports the facts asserted in its Petition with adequate evidence during the hearing, the Illinois EPA recommends that the Board grant the adjusted standard.

Respectfully submitted,

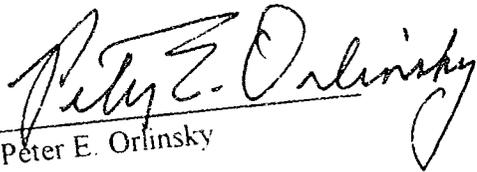
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By   
Peter E. Orlinsky  
Assistant Counsel  
Illinois Environmental Protection Agency  
1701 South First Avenue  
Suite 600  
Maywood, IL 60153  
708/338-7890

PEO pgb hrd pet

CERTIFICATE OF SERVICE

I, the undersigned, certify that I have served the attached NOTICE OF FILING and RESPONSE upon the persons specified in the NOTICE OF FILING by First Class Mail on this 27<sup>th</sup> day of August, 1999

  
Peter E. Orlinsky

PEO:pgb:cos 2