



State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street
Logan, Ohio 43138-9031
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George V. Voinovich
Governor

June 20, 1996

**RE: GUERNSEY COUNTY
SHIELDALLOY
MSL # 430-1072
DERR CORRESPONDENCE**

Jim Valenti
Environmental Manager
Shieldalloy Metallurgical Corporation
12 West Boulevard
Newfield, NJ 08344

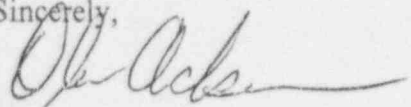
Patrick Lee
Cyprus Foote Minerals Company
9100 East Mineral Circle
Englewood, CO 80122

RE: PHASE I ECOLOGICAL RISK ASSESSMENT COMMENTS.

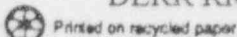
Dear Sirs:

The Ohio EPA has completed its review of the redline/strikeout draft of Phase I Ecological Risk Assessment for the Shieldalloy, Cambridge, Ohio site dated April 18, 1996. A rapid review is being conducted on this document in order to assist Shieldalloy in meeting its desired deadlines. Please revise the ERA-Phase I to correct all deficiencies noted in the attached comments. If you have any questions, please feel free to call me at this office.

Sincerely,


Olen Ackman
Site Coordinator
Division of Emergency and Remedial Response
OATje

cc: Walt Shields, PTI
C. Scott Eves, SMC
Robert Karl, AGO
Catherine Stroup, Legal-Ohio EPA
Jennifer Wendell, USEPA Region V
Mike MacMullen, USEPA Region V
~~Mark Thaggard, USNRC~~
Jim Webb, ODH
Ruth Vandergraf, ODH
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GENERAL COMMENTS

1. The Ecological Risk Assessment, Phase I, April 18, 1996 makes the assertion that the low number of macroinvertebrate taxa at river mile(RM) 0.9 is due simply to poor physical habitat quality. To test that assertion the Ohio EPA selected all sites with less than 20 sq. miles drainage area with QHEI scores between 30 and 50, excluding sites with known water quality problems, where the Agency had QHEI scores and qualitative macroinvertebrate data. As illustrated in the attached graph, sites with QHEI scores between 30 and 39.5 (N = 22), the mean number of Qual. taxa was 27, the 25th percentile was 24 taxa. The site on Chapman Run at RM 0.9 had a QHEI score of 34 and 13 Qual. taxa, well below the community performance of sites with similar habitat quality. Of sites with QHEI scores between 40 and 50 (N = 44), the mean number of taxa was 29, the 25th percentile was 26 taxa. The site on Chapman Run at RM 1.1 had a QHEI score of 47.5 and 24 Qual. taxa, again below the community performance of sites with similar habitat quality. The site on Chapman Run at RM 1.6 had a QHEI score of 49.5 and 29 Qual. taxa, equal to the mean number of Qual. taxa from sites with similar habitat quality.

The Ohio EPA considers that the poor community performance at RM 0.9 is not solely attributable to poor physical habitat quality but demonstrates some toxic effect. Also the poor physical habitat conditions are exasperated by silt loading from the Site. Please correct the text as necessary.

SPECIFIC COMMENTS

1. Page xiii, third paragraph, fifth sentence: The text notes that SMC conducted a survey of Chapman Run using Ohio EPA protocols. The information presented in this sentence is misleading. To Ohio EPA's knowledge SMC did not conduct a survey using Ohio EPA sampling protocol. Additionally the Ohio EPA's report Biological, Sediment and Water Quality Study of Chapman Run and Associated Wetlands, August 30, 1995 does not state nor conclude that "any impacts to the macroinvertebrates from the Site are localized...". Please strike the sentence from the text.
2. Page 7-37, second paragraph, second to last sentence: The text states that RM 5.8 was "the only relatively high gradient site that was sampled". The gradient at RM 5.8 was very low, similar to the gradient at RM 0.9, the gradient at the upper fish sampling site (RM 5.2) was higher. Please strike, "the only relatively high gradient site that was sampled " from the sentence.
3. Page 7-57, Section 7.7.3, last bullet, last sentence: The text states that "Comparison of numbers of macroinvertebrate taxa between stations yields limited information but suggests that any toxic effects on macroinvertebrate communities in Chapman Run are focused around river mile 0.9." . The data, as presented in Ohio EPA's report, does not define the exact limits of impacts at RM 0.9. Any conclusions delineating the area of impact needs to be supported with substantiating data. Please revise the text accordingly.

Qualitative Taxa Collected at Sites with QHEI Scores Between 30 and 50

