



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

June 1, 1999

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Ms. Dierdre Riley  
Supervisor, Environment  
Red Dog Mine  
P.O. Box 1230  
Kotzebue, Alaska 99752

Dear Ms. Riley,

This letter responds to your facsimile dated May 12, 1999 concerning the applicability of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). Your message contains four questions regarding the application of EPCRA section 313 reporting requirements to metal mining operations.

Your first question regards threshold determinations for toxic chemicals in the cyanide compound category and hydrogen cyanide, a separately listed EPCRA section 313 toxic chemical. As I understand your question, your facility exceeds an activity threshold for the cyanide compound category and also uses hydrogen cyanide on-site but below all applicable activity thresholds. You ask if the facility should include hydrogen cyanide releases and other waste management on the Form R submitted for cyanide compounds.

No, the facility should not include hydrogen cyanide releases with a Form R submitted for cyanide compounds. Hydrogen cyanide is a separately listed EPCRA section 313 toxic chemical and therefore is only reportable if a covered facility exceeds an activity threshold for this chemical. If your facility only exceeds an activity threshold for cyanide compounds, you need only report releases and other waste management of chemicals in that chemical category. (See Question and Answer (Q&A) # 421 in the 1998 "EPCRA Section 313 Questions and Answers" document.)

Your second question regards the coincidental manufacture of metal compounds from acid rock drainage. Specifically, you explain that your facility stores waste rock in on-site piles. The facility collects water run-off from these piles in a tailings (surface) impoundment. Sulfide bearing minerals in the stored waste rock react with the ambient air and water. The reaction forms a weak acid and metals in the waste rock solubilize into their ionic forms. Once the metal solution reaches the tailings impoundment some of the metals drop out of solution. You ask if this natural process should be considered towards the manufacturing threshold for the metal compounds.

Natural processes which create toxic chemicals are not excluded from threshold determinations for manufacturing. As EPA explained in the preamble to the 1988 final rule:

[t]here is no limitation in this definition that would exclude manufacture of a toxic chemical coincidental to the production, processing, use or disposal of another chemical... Accordingly, EPA believes that such production is included in the definition of manufacture under section 313.

(February 16, 1988; 53 FR 4504)

Therefore, the metal compounds coincidentally manufactured as a result of acid rock drainage should be considered toward your facility's manufacturing thresholds. (See also Q&A # 484 in the 1998 "EPCRA Section 313 Questions and Answers" document.) Metal compounds in solution would be included in the facility's manufacturing threshold. The fact that the compounds are in solution does not negate the fact that they are metal compounds.

Your third question refers to maximum amount on-site determinations in part II section 4.1 of the Form R. You ask if metal mining facilities need to consider all quantities of the toxic chemical in unmined ore on-site that remain in the ground when determining the maximum amount on-site.

As explained in Q&A #632 in the 1998 "EPCRA Section 313 Questions and Answers" document:

*Covered facilities* must indicate the maximum amount of the *toxic chemical* on-site at any one time during the reporting year. The maximum amount on-site includes raw materials, in-process materials, product inventory, and quantities present in wastes. Owners or operators must total all quantities of the nonexempt amounts of the *toxic chemical* present at the *facility* when completing Part II, Section 4.1 of the Form R.

However, covered mines need not consider towards this quantity amounts of toxic chemicals found in the earth that remain in the ground and have not been extracted by the facility.

Finally, your fourth question regards the reporting of toxic chemicals temporarily stored in the surface impoundment mentioned earlier that are eventually discharged under the facility's National Pollutant Discharge Elimination System (NPDES) permit. You explain that after you collect the acid rock drainage in the tailings impoundment, you treat as much as you are allowed. Then under your NPDES permit, you periodically discharge the drainage containing metal compounds. You ask if in order to avoid double counting releases of these toxic chemicals, your facility should "subtract the metals released in treated water from the water collected on-site in the impoundment." You also explain that some of the collected water is generally left in the pond from year to year.

As explained in the Form R Instructions:

"[q]uantities of the EPCRA section 313 chemical released to surface impoundments that are used merely as a part of a wastewater treatment process generally must not be reported in this section. However, if the impoundment accumulates sludges containing the EPCRA Section 313 chemical, you must include and estimate in this section [Part II, section 5.5.3] unless the sludges are removed and otherwise disposed (in which case they should be reported under the appropriate section of the form)." (Pg. 33 of the "1998 Toxic Chemical Release Inventory Reporting Forms and Instructions"; EPA 745-K-99-001)

Elsewhere in the instructions to the Form R, facilities are directed to report discharges to receiving streams or water bodies in Part II, section 5.3 of the Form R (See pages 31-32 of the "1998 Toxic Chemical Release Inventory Reporting Forms and Instructions"; EPA 745-K-99-001) Therefore, your facility should report the quantity of the toxic chemical that is ultimately discharged during the reporting year under its NPDES permit to the appropriate stream or water body as it appears on the permit. Quantities of the toxic chemical that remain in the sludge at the end of the year should be reported either as a release to a surface impoundment or, if dredged, their ultimate disposition.

I hope this information is helpful to you in making threshold determinations and release and other waste management calculations for section 313 of EPCRA. If you have any other questions, or desire further information, please call either Larry Reisman at 202.260.2301 or me at 202.260.9592.

Sincerely,



Maria J. Doa, Ph.D., Chief  
Toxics Release Inventory Branch