



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

OFFICE OF
WATER

JAN 13 1983

MEMORANDUM

SUBJECT: Criteria for Reviewing Leather Tanning
Sulfide Waiver Applications

FROM: Martha G. Prothro, Director *MGP*
Permits Division (EN-336)

TO: Water Management Division Directors
Regions I - X

Section 425.04 of the Leather Tanning and Finishing Effluent Guidelines allows POTWs receiving wastewater from leather tanners to certify that sulfide discharges from these facilities do not interfere with their operations. Under this section, each Regional Office must review all sulfide certifications submitted by POTWs. In making such a certification, POTWs must consider the four criteria specified in Section 425.04(b).

Region V staff have developed specific guidance for reviewing sulfide certifications submitted by POTWs under this regulatory provision. These criteria are very comprehensive. They have been reviewed by the Office of Water's Effluent Guidelines Division and the Office of General Counsel. We believe that Region V's criteria provide useful guidelines for evaluating sulfide waiver applications.

Accordingly, I am forwarding to you a copy of these criteria which may be used in reviewing sulfide waiver applications. I believe that these criteria will help provide national consistency in reviewing these applications.

If you have any questions, please contact Tim Dwyer
(FTS: 426-4793).

Attachment

REVIEW CRITERIA FOR LEATHER TANNING SULFIDE WAIVER APPLICATIONS

Introduction

Publicly owned treatment works (POTWs) with industrial users (IUs) regulated by the 40 CFR 425 Leather Tanning and Finishing Regulations have the option to request that the categorical pretreatment standard for sulfide be waived for tanners provided that the user's sulfide discharge does not interfere with operations of the treatment works. The POTW must provide a statement that certifies and supports to the Regional Water Division Director the noninterference claim.

As part of the waiver review process, the Region will determine whether the applicant has complied with the public noticing and certification requirements of Sections 425.04(b) and (c). The adequacy of the certification will be determined by comparing the information in the applicant's submittal to the criteria as listed below. Section 425.04(b) lists four general factors on which the POTW must report. Since these factors are general in nature and tannery sulfide discharges may have significant environmental impact, the Region will be using more specific criteria to assess whether this discharge would have a deleterious effect on the treatment works' operations. If submittals for the waiver requests do not contain sufficient information as specified by the criteria, the POTWs will be required to provide the Region with further data for review before a formal determination is issued on the request.

Criteria

- A. Provide the following information for each of the tannery facilities for which the sulfide waiver is proposed to be granted.
 1. Description of tanning operations. (NOTE: If the user engages in unhairing operations, specify if beamhouse (hair pulp or hair save) and tanyard (pickling) processes are performed.)
 2. The applicable subpart that would apply to the user's operations according to the Leather Tanning Subcategories.
 3. The present, past, and maximum process capacity (hides/day) of the user.
 4. Diagram of tanning and finishing processes and wastewater flows, especially for unhairing and pickling operations.
 5. Specify whether spent liquors are discharged or recycled.
 6. Characteristics of waste discharge including
 - a. Analytical data on sulfide and other sulfur compounds such as sulfates, etc.
 - b. pH (average and range) of wastestreams.
 - c. Volume of discharge (average and maximum, GPD).

7. Specify whether the plant's discharge schedule is continuous, batch, etc.

8. What, if any, pretreatment is employed at the plant especially in regards to sulfide and pH?

9. Are the facilities regulated by any local limitations or prohibited discharges?

Specify the mechanism (i.e. permits, contract, order, ordinance, etc.).

10. If the above does apply, have there been any instances where the discharger did not meet these limitations?

11. Provide a map of the treatment service area illustrating the points of discharge of the tanners.

B. The following items will be considered under factors (1)-(4) of Section 425.04(b).

425.04(b)(1)

"The presence and characteristics, of other industrial wastewaters which can increase or decrease sulfide concentrations, pH or both."

a. When reporting other industries that have the potential to contribute to the sulfide or low pH problem specify:

1. The operations of the facility that generate these wastes.
2. Wastewater discharge volume.
3. Wastewater characteristics such as pH and sulfide/sulfur content.
4. Discharge schedule (batch, continuous, etc.).

b. If there are other tanning facilities in the treatment system that are not requesting the sulfide waiver, indicate whether they have the potential to contribute to the sulfide or low pH problem. If they do have this potential, submit information as required in "a" above about the facilities.

c. On a map of the treatment service area, indicate the location of industries that do have the potential to contribute to sulfide and pH problems.

425.04(b)(2)

"The characteristics of the sewer/interceptor collection system which either minimize or enhance opportunities for release of hydrogen sulfide gas."

a. Is the sewage system free-flowing?

1. Are there stagnant or dead spots in the system after points of contribution from tanners?
2. Are these areas aerobic or anaerobic?

b. Are personnel that would enter these areas for sampling purposes, etc., using confined space entry procedures and three-way gas monitors as precautionary measures?

c. Have there been any reports (not necessarily confirmed) of worker's health problems that could be related to hydrogen sulfide exposure? Symptoms could include eye irritation, pulmonary distress, headaches and dizziness.

d. Have there been complaints of odor problems ("rotten eggs") along the treatment lines?

e. Provide recent survey information on the sewer lines to illustrate whether damage has occurred from the conversion of hydrogen sulfide to sulfuric acid.

425.04(b)(3)

"The characteristics of the receiving POTW headworks, preliminary and primary treatment systems, and, sludge holding and dewatering facilities which either minimize or enhance opportunities for release of hydrogen sulfide gas."

a. Are the treatment facilities enclosed or well ventilated?

b. Does the system have a long hydraulic detention time?

c. Does the municipality have an influent/effluent discharge standard for sulfide or pH? If so, what are they? If not, are any being proposed?

d. Are any of the tanners requesting a waiver for facilities located within another township or municipality outside your legal jurisdiction but discharging to your system?

e. What levels of sulfide are entering and being discharged from the POTW (average and maximum)?

f. Provide a 5-year historical review of sulfide related interference problems. This should address corrosion, hydrogen sulfide toxicity to the system, problems with sludge disposal because of odor, permit violations and any other POTW interference.

g. Have there been complaints of odor problems ("rotten eggs") at the treatment plant?

h. Have there been any reports of worker's health problems or deaths that could be related to hydrogen sulfide exposure at the treatment works?

i. Has OSHA established ambient air limits for hydrogen sulfide at the treatment plant?

425.04(b)(4)

"The occurrence of any prior sulfide related interference as defined by 425.02(j)."

Section 425.02(j) defines "Interference" as "the discharge of sulfides in quantities which can result in human health standards and/or risks to human life, and an inhibition or disruption of POTW as defined in 40 CFR 403.3(j)."

This definition of interference should be noted when formulating responses to the above inquiries.