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SAMPLING LOCATION IN A SEPERATOR - THICKENER TREATMENT TRAIN AND THE MIXTURE RULE

APR 24 1986

Mr. Leland Herning
Chevron USA, Inc.
P.O. Box 7
Cleves, OH 45002

Dear Mr. Herning,

The purpose of this letter is to summarize the February 13, 1986, telephone conversation between yourself and Doreen Sterling of my staff and the ensuing conversations with Chris Tanner, ERM-Southwest, Inc. regarding Chevron's sampling and analysis plan. The plan was submitted on January 13, 1986, and covered both the separator sludge the pond sludge. We agree with Mr. Tanner that it is imperative that we document our position to ensure no misunderstandings in the future.

Chevron proposed to take ten grab samples of the separator sludge as it is pumped to the thickener during a five-minute pump cycle. Thus, samples would be taken every 30 seconds over the course of five minutes. Chevron further proposed to allow the samples to settle for a half-hour, and the samples which showed a "relatively significant volume of solids" would be mixed. Grab samples of the essentially solids free water pumped at the end of the cycle and the solids free water left in the line would be discarded. Chevron claims that the grab samples are "representative" of the pump cycle. a composite sample would be constructed from equal volumes of three grab samples taken over a four hour period.

The Agency is concerned that the proposed sampling plan may not result in collection of samples that are truly representative of the listed waste. In particular, we believe that the samples would consist of the listed API separator sludge diluted with a large volume of non-listed wastewater. Chevron concedes that the water, which purges the sludge from the line, is "easily" separated from the sludge and returned to the influent of the oil/water separator. The agency has, therefore, concluded that the dilute samples taken from the separator are not representative of the

waste. Although the Agency recognizes that it is the API separator sludge which is the listed waste, the Agency believes, however, that samples of the thickened sludge would more accurately represent the waste for the reasons discussed below.

Ordinarily, the combination of API separator sludge and water would be considered a mixture of a listed hazardous waste and non-listed wastewater. By virtue of the mixture rule (40 CFR §261.3(a)(2)(iv)), the resultant wastestream would be defined as hazardous. Even if the sludge is dewatered, the resultant liquid "derived from" rule (40 CFR 261.3(c)(2)(i).

According to memorandum dated August 23, 1985 (see enclosure), however, the Agency concluded that the "derived from" rule is not uniformly applicable to the aqueous stream generated in a sludge dewatering process. The basis for this determination was that properly conducted dewatering of API separator sludge would insure that none of the listed waste is returned to the system, while simultaneously reducing the total amount of waste generated. This assumes that the non-listed wastewater came in contact but was not "mixed" with the sludge.

The burden of proof is on the facility to establish that "properly conducted" dewatering had occurred. Specifically, if the facility can demonstrate, to the satisfaction of the Regional authorities, that the return water stream is chemically equivalent to the non-listed wastewater influent to the wastewater treatment device that originally generated the listed waste, then the return water stream is not "derived from" the hazardous waste. EPA may , however, make its own evaluation and determine that the waste in question is indeed a mixture.

Chevrons's four bay aerated lagoon is not currently reported as a regulated waste management unit. We, therefore presume that Chevron has satisfactorily made the demonstration, to the appropriate Regional authorities, that effective dewatering of sludge had occurred and that the return wastewater is not the listed waste. If this is correct, then the separator sludge, which is diluted with water, is not considered a mixture. Sampling of a waste, diluted with a large volume of water, does not constitute a representative sample. It is, therefore, necessary that you sample the dewatered sludge by either: (1) sampling the thickener, or (2) analyzing the sludge from the separator once the water has been removed. If you choose the latter option, the samples should be allowed to settle

for ninety minutes (the calculated wastewater residence time in the separator). During settling, the samples should be properly stored to prevent the possible loss of hazardous constituents through volatilization (i.e., the samples should be capped and refrigerated).

If we have misrepresented your position that properly conducted dewatering has occurred and you believe instead that the dilute sample coming off of your separator is indeed a "mixture," you should be aware that your downstream impoundments are then hazardous waste management units. If the units in question were not included on Part A of your RCRA permit application, or subsequent modification thereof and/or were not covered in your certification of compliance with applicable ground water monitoring and financial requirements, then these units do not have interim status under RCRA. They must cease the receipt of hazardous waste immediately and closure plans must submitted to EPA or an authorized State agency for review, approval, and implementation (§3005(e)(2) of RCRA, see 50 FR 38946). Failure to comply may subject you to enforcement action.

If you have further questions regarding this issue, please contact Doreen sterling of my staff at 202-475-6775.

Sincerely,

Eileen Claussen
Director
Characterization and Assessment
Division (WH-562B)

Enclosure

cc: Chris Tanner, ERM-Southwest

bcc: Ben Smith
Lloyd Guerci, OWPE
Dale Helmers, Region V