BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
CHAMPAIGN COUNTY, ILLINOIS

MORTON F. DOROTHY, Complainant, vs. FLEX-N-GATE CORPORATION, an Illinois Corporation, Respondent.	)	No. PCB 05-049

CERTIFICATE OF SERVICE

I, the undersigned, certify that, on the 25 day of April, 2005, I served the listed documents, by first class mail, upon the listed persons:

SUPPLEMENTAL REQUEST TO ADMIT THE TRUTH OF CERTAIN FACTS
SUPPLEMENTAL INTERROGATORIES

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Morton F. Dorothy
Morton F. Dorothy, Complainant

Morton F. Dorothy
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217/384-1010

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
CHAMPAIGN COUNTY, ILLINOIS

MORTON F. DOROTHY,	)	
	)	
Complainant,	)	
	)	
vs.	)	No. PCB 05-049
	)	
FLEX-N-GATE CORPORATION, an Illinois Corporation,	)	
	)	
Respondent.	)	

SUPPLEMENTAL REQUEST TO ADMIT THE TRUTH OF CERTAIN FACTS

Complainant Morton F. Dorothy requests that respondent Flex-N-Gate Corporation admit the truth of the following statements within 28 days after the date of this request. Failure to respond to the following requests to admit within 28 days may have severe consequences. Failure to respond to the following requests will result in all the facts requested being deemed admitted as true for this proceeding. If you have any questions about this procedure, you should contact the hearing officer assigned to this proceeding or an attorney.

1. Respondent claims exemption from the RCRA permit requirement pursuant to 35 Ill. Adm. Code 703.123(a) and 722.134(a) with respect to one or more wastes generated by the Guardian West facility.

2. Respondent prepared an "Emergency Response and Contingency Plan" pursuant to 35 Ill. Adm. Code 725.151 through 725.156 for the Guardian West facility.

3. Respondent prepared an "Emergency Response and Contingency Plan" pursuant to 35 Ill. Adm. Code 725.151 through 725.156 for the Guardian West facility with the intention of meeting the conditions of Section 722.134(a)(4).

4. The acid spilled in the August 5, 2004 incident was mainly concentrated sulfuric acid from the line used to fill Tank 8.

5. Concentrated sulfuric acid reacts violently when added to water, producing heat, high temperature, agitation and boiling.

6. Although it is possible that some of the dilute sulfuric acid in Tank 8 back-siphoned out of the tank, the spill was mainly concentrated sulfuric acid from the fill line.

7. The spill was not from the line used to drain Tank 8.

8. The spill cleaned all of the corrosion off the copper conductors in the vicinity of the separated pipe, exposing bright copper metal.

9. The odor produced in the August 5, 2004 incident was not the odor of sulfuric acid.

10. The odor produced in the August 5, 2004 incident was consistent with the odor of hydrogen sulfide.

11. Although the odor produced in the August 5, 2004 incident was similar to the odorificant used to mark propane gas, no propane tanks were observed close to the source of the odor, leaking or otherwise.

12. During the response to the spill at the end of third shift, August 4-5, 2004, no person who was present made any statement that the odor was something other than hydrogen sulfide.

13. Respondent made no attempt to take samples to identify the source of the odor on August 5, 2004.

14. Copper metal is capable of reducing sulfuric acid, producing sulfur oxides in a reduced oxidation state.

15. Elemental sulfur can form by disproportionation in a complex mixture of sulfites, sulfates and sulfur in other oxidation states.

16. Elemental sulfur can react with water to form sulfides.

17. Any sulfide formed under the conditions usually present on the plating room floor would precipitate, mainly as nickel sulfide.

18. The precipitation of nickel sulfide from an aqueous system including sulfate, sulfite, elemental sulfur and sulfide would tend to drive the oxidation/reduction equilibrium toward the formation of sulfide.

19. Additives HSA-90 and TA are used in Tank 20 to form a high sulfur layer to promote corrosion resistance.

20. Additive HSA-90 contains reduced forms of sulfur.

21. Additive TA contains reduced forms of sulfur.

22. Reduced sulfur oxides are an expected decomposition product of HSA-90.

23. Additive 2-NS includes formaldehyde.

24. Formaldehyde can act as a reducing agent.

25. Additive TL includes 1,4-butynediol.

26. 1,4-butynediol can act as a reducing agent.

27. Additives 2-NS, TL, HSA-90 and TA are used and spilled across from and in close proximity to Tank 8.

28. No strong oxidizing agents are normally used or spilled in the vicinity of Tank 8.

29. During the incident on August 5, 2004, complainant asked Denny Corbett for a hydrogen sulfide probe.

    a. Denny Corbett did not inform complainant or other persons involved in spill response that respirators effective against hydrogen sulfide were available.

    b. Denny Corbett did not inform complainant or other persons involved in spill response that a hydrogen sulfide probe was available.

    c. Denny Corbett did not produce a hydrogen sulfide probe during the incident.

30. Respondent did not measure the hydrogen sulfide levels in the atmosphere in the vicinity of the spill at the end of third shift, August 4-5, 2004.

    a. Respondent did not attempt to measure the hydrogen sulfide levels in the atmosphere in the vicinity of the spill at the end of third shift, August 4-5, 2004.

    b. Respondent did not attempt to measure the hydrogen sulfide levels in the atmosphere near the roof vents at the end of third shift, August 4-5, 2004.

31. In response to Question 10, Respondent identified only Afiba Martin as having reported being sickened by the release.

    a. Complainant reported that he was sickened.

    b. Denny Corbett reported that he was sickened

c. Joseph Al-Hussani reported that he was sickened.

d. Regina Lebbie reported that she was sickened.

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SUPPLEMENTAL INTERROGATORIES

Complainant Morton F. Dorothy requests that respondent Flex-N-Gate Corporation respond to the following supplemental interrogatories within 30 days after the date of this request:

1. In response to Question 3 and Requests to Admit 5 through 7, Respondent claims that only "some of the hazardous waste that the facility at issue generates is managed pursuant to" 35 Ill. Adm. Code 722.134.

   a. Which wastes does respondent claim to manage pursuant to 35 Ill. Adm. Code 722.134?

   b. Which wastes does respondent claim to not manage pursuant to 35 Ill. Adm. Code 722.134?

   c. Provide a map delineating the portions of the facility which operate under 35 Ill. Adm. Code 722.134 and the portions which do not operate under Section 722.134.

   d. Identify the regulatory provisions under which respondent claims the right to operate only a portion of the facility under 35 Ill. Adm. Code 722.134.

   e. Has respondent ever notified the Illinois Environmental Protection Agency that it claims that only "some of the hazardous waste that the facility at issue generates is managed pursuant to" 35 Ill. Adm. Code 722.134. If so, provide copies of all correspondence concerning this issue.

   f. Has the Illinois Environmental Protection Agency ever approved the subdivision of the facility into a Section 722.134 and non-Section 722.134 facility?

g. Identify any portion of the Emergency Response and Contingency Plan for the facility that delineates the Section 722.134 portion of the facility.

h. Identify any portion of the Emergency Response and Contingency Plan that limits its applicability to the Section 722.134 portion of the facility.

i. Under the Emergency Response and Contingency Plan, who makes the determination as to whether a response is to be made pursuant to the Section 722.134 requirements, or otherwise?

j. Does respondent prepare hazardous waste manifests for wastes that are moved from the Section 722.134 portion of the facility to the non-Section 722.134 portion of the facility?

2. In response to Question 6, respondent has stated that it prefers to refer to the area under the "chrome plating line" as the "plating room floor". Complainant accepts this terminology for purposes of the following questions, with the following caveat: Only Tanks 25 and 26 are involved in plating chromium. Tanks 1 through 22 are involved in cleaning and plating nickel in preparation for plating with chromium. Complainant is using the term "plating room floor" as referring to the area under Tanks 1 through 29.

a. In response to Question 5, respondent has provided analyses of the influent into the "wastewater treatment unit". Do these samples include the suspended solids in the influent, or are they samples filtered prior to analysis?

b. In response to Question 11, respondent has admitted that the "plating room floor" has never been completely clear of materials. Prior to August 5, 2004, when was the "plating room floor" last completely clear of sludge and debris?

c. Has respondent tested the sludge on the "plating room floor" to see if it evolves hydrogen sulfide in the presence of strong acid?

3. Has respondent tested the copper conductors, in their usual corroded state, to see if the copper, or the corrosion on the copper, produces hydrogen sulfide on contact with concentrated sulfuric acid?

a. Is respondent familiar with the reduction of concentrated sulfuric acid with copper metal, resulting in reduced sulfur oxides?

4. In response to Question 18, respondent has stated that a "3M 60926 Multi gas/Vapor cartridge/P100" filter was available, but did not provide the ASTM or

other standard specifications for this mask and cartridge. Complainant is unable to confirm that this cartridge is effective against hydrogen sulfide. What is the ASTM or other standard specification for this mask and cartridge? Other standards could include ANSI, ISO, NIMS or other industrial standard setting bodies.

5. In response to Question 30, states that it has amended the Emergency Response and Contingency Plan since August 4-5, 2004, but not in response to the incident of that date. Has respondent amended the plan to address the potential hydrogen sulfide problem for reasons other than "in response to" the incident?

6. In response to Question 34, respondent states that "the haze is very likely a suspension of very small particles of Barium Carbonate and Chromium Trioxide and Barium Sulfate".

   a. Does respondent have any evidence to support this assertion?

   b. Does respondent have any proof that the haze is not elemental sulfur?

7. In response to Question 31, respondent discusses possible mechanisms resulting in a release of hydrogen sulfide gas. Is the respondent familiar the "disproportionation reaction" in which molecularly-combined sulfur compounds with a certain oxidation state react with themselves to "disproportionate", with a mixture of higher and lower sulfur oxidation states resulting?

   a. Why do the sodium thiosulfate analytical solutions used in the plating lab sometimes appear to be slightly turbid?

   b. Does respondent have any evidence suggesting that disproportionation does not occur on the "plating room floor".

8. Is respondent familiar with the reaction of elemental sulfur with water to produce sulfide?

   a. Does respondent have any evidence to show that sulfide is not formed from elemental sulfur on the plating room floor?

9. Do the cleaners used in the basic cleaning tanks use organic sulfonate surfactants?

   a. Do the cleaners use other organo-sulfur compounds?

   b. Do organic sulfonates contain sulfur in a reduced form?

c. Provide the MSDSs for the basic cleaners used on the plating line in the year preceding August 5, 2004.

10. In response to Question 31, respondent discusses anaerobic biodegradation as a possible mechanism for the formation of sulfide.

a. Does respondent have any evidence that anaerobic biodegradation is not occurring on the "plating room floor"?

11. In response to Question 31, respondent has stated that "no strong reducing agents are used on the plating line"

a. Does respondent use additives "2-NS" and "TL" as additives to the nickel plating tanks?

b. Is an active ingredient in 2-NS formaldehyde?

c. Is formaldehyde a reducing agent?

d. What happens when you mix formaldehyde with silver nitrate?

e. Is the active ingredient in TL 1,4-propynediol?

f. Is 1,4-propynediol a reducing agent?

g. What happens when you mix a strong chromic acid solution with 1,4-propynediol?

h. Does the MSDS for TL have a warning against mixing it with strong oxidizing agents?

i. Are formaldehyde and 1,4-propynediol used in Tanks 17 - 21?

j. Are tanks 17 through 21 located across from and in close proximity to Tank 8?

k. What is the purpose of Tank 20 in the plating process?

l. In the months prior to August, 2004, did respondent use additives "TA" and "HSA-90" in Tank 20?

m. Was HSA-90 a new additive that had not previously been used at the facility?

n. What is the form of sulfur used in TA and HSA-90?

o. Is the sulfur in TA and HSA-90 in a reduced or oxidized state?

p. Why does the MSDS for TA have a warning against mixing it with strong acids?

q. Is sulfite a known degradation product of HSA-90?

12. In response to Question 31, respondent has stated that "Quite the opposite, chromic acid is a very strong oxidizing agent."

a. Is chromic acid normally used and spilled in the vicinity of Tank 8?

b. Is chromic acid normally used and spilled only in the vicinity of Tanks 25 and 26?

c. Does the floor slope from Tank 25 all the way toward Tank 8?

d. Name any strong oxidizing agents used in the vicinity of Tank 8.

13. In response to Question 32, respondent has stated that Denny Corbett and Tony Rice made the determination that there was no emergency.

a. How long after the spill was noticed was this determination made?

b. What language in the Emergency Response and Contingency Plan gave these persons the authority to make this determination?

c. Provide a copy of the determination.

14. In response to Question 33, respondent states that "[n]o metal sulfides were present in the plating room..." Does respondent have proof of this assertion?

a. Do Tanks 17 through 22 contain a solution of nickel chloride and nickel sulfate in a slightly acidic borate buffer?

b. Does Tank 15 contain an acidic solution of nickel chloride and nickel sulfate?

c. Are Tanks 8 and 13 acidic cleaners?

d. Are Tanks 1,3,5,10 and 11 basic cleaners?

e. Is the usual pH on the "plating room floor" basic to slightly acidic, with the possibility of being more acidic after an acid tank is dumped to the floor, or

more basic after a basic tank is dumped to the floor?

f. When the pH is basic to slightly acidic, is any sulfide present on the plating floor likely to be present as solid nickel sulfide?

15. In response to Question 34, respondent states that "the haze is very likely a suspension of very small particles of Barium Carbonate and Chromium Trioxide and Barium Sulfate".

a. Does respondent have any evidence to support this assertion?

b. Does respondent have any proof that the haze is not elemental sulfur?

16. In response to complainant's request to admit the truth of certain facts, Request 13, respondent denies that "Respondent did not assess possible hazards to human health and the environment during or following the incident during third shift on August 4-5, 2004."

a. Provide a copy of the assessment.

b. Who made the assessment?

c. When and where was the assessment made?

d. What were the levels of hydrogen sulfide in the vicinity of the spill?

17. Is there an air curtain over Tank 8, and the other tanks in the vicinity of Tank 8?

a. Does the exhaust from the air curtain exit to the roof?

b. What treatment is provided for the Tank 8 air curtain exhaust?

c. Is the exhaust from the acid tanks routed to different treatment than the exhaust from the basic tanks?

18. Does the plating lab have fume hoods to exhaust air to the roof?

a. Where does the make-up air for the plating lab come from?

19. In response to complainant's request to admit the truth of certain facts, Request 20, respondent refused to admit that "Tony Rice testified under oath on October 26, 2004, that the acid spill was from the fill pipe to Tank 8 and that he was told that the spill was concentrated sulfuric acid."

a. Did Tony Rice testify under oath concerning the August 5, 2004 incident on October 26, 2004?

b. What did Tony Rice say about the source of the spill?

c. What did Tony Rice say about the concentration of the acid?

20. In response to complainant's request to admit the truth of certain facts, Request 20, respondent denies that "Tony Rice stated to complainant, on or about August 13, 2004, during the course of a discussion of the August 4-5 incident, that the ruptured pipe "emptied the day tank"".

a. What did Tony Rice say to complainant about the extent of the acid spill on or about August 13, 2004?

b. How much acid was spilled in the August 4-5 incident?

c. How did respondent determine the volume of acid spilled.

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