MO. Case

MISSOURI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 1368 1915 Southridge Drive Jefferson City, Missouri 65102 (314) 751-3241

June 9, 1982

Mr. Ed Hughes
Project Engineer
Nixdorff-Lloyd Chain Company
916 Howard Street
P. O. Box 14828
St. Louis, MO 63178

Dear Mr. Hughes:

Enclosed please find a copy of the Resource Conservation and Recovery Act Compliance Inspection Report for your facility. I believe it is self-explanatory.

If you have any questions or if we can be of assistance to you, don't hesitate to contact either the regional office or Mr. Paul Meiburger of this office.

Sincerely,

David E. Bedan, Ph.D.
Director
Waste Management Program

DEB/PM/bki

Enclosures

cc: St. Louis Regional Office
U. S. EPA Region VII Enforcement Branch

R00342896
RCRA RECORDS CENTER

27.080 St. Louis
Nixdorff-Lloyd Ch Company
May 11, 1982

MAY 27 1982
SOLID WASTE
MANAGEMENT PROGRAM

RCRA COMPLIANCE INSPECTION REPORT

FACILITY

Nixdorff - Lloyd Chain Company
916 Howard Street
P. O. Box 14828
St. Louis, Missouri 63178
(314) 421-2676
MO Generator ID: 01514
EPA ID: MOD000010975

INTRODUCTION

A RCRA Compliance Reinspection was performed on April 29, 1982 at the Nixdorff-Lloyd Chain Company facility in St. Louis. Representing the Missouri Department of Natural Resources (MDNR) was Ken Gambaro, Environmental Engineer. Mr. Ed Hughes, Project Engineer; Mr. Harry McCarthy, Chief Engineer; and Ms. Johnnie Johnson, Personnel Manager/ Factory Nurse; represented Nixdorff-Lloyd. The intent of this inspection was to determine if the unsatisfactory features found during the September 17, 1981 inspection had been corrected.

Since the previous inspection, Nixdorff-Lloyd has taken steps to eliminate their status as a storage facility. The plating bath sludges and stripping and cleaning solutions (F008 and F009) previously stored on-site have been disposed of or reused. Mr. Hughes feels that, due to process changes, these wastes will no longer be generated.

Nixdorff-Lloyd is now serviced by Safety Kleen Corporation for most of the cleaning solvents they utilize. In this operation, the solvent remains in an enclosed system and Safety Kleen periodically replaces the used drum of solvent with fresh solvent. A small amount of Stoddard solvent is also generated but Mr. Hughes stated that it is at quantities below one hundred (100) kilograms per month. He feels that this will be reduced further as Safety Kleens services are utilized more.

The spent pickle liquor (K062) generated by Nixdorff-Lloyd is still sent to the St. Louis City Water Division for use as a coagulant aid. Nixdorff-Lloyd has ordered a mechanical descaler which they feel will eliminate the use of pickle liquor at their facility.

Waste oil is generated and is sent to Midwest Oil Refining for recycling.

All of the documentation not available during the previous inspection was available at the time of reinspection. This included an inspection log, personnel and training documentation, contingency plan, and preparedness and prevention documentation required for generators. A closure plan was also on file. Manifest exception reports were filed with the Environmental Protection Agency (EPA) for the two loads noted in the previous inspection. No problems were found with the recent manifests.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
8460 Watson Road St. Louis, Missouri 63119 (314) 849-1313

Christopher S. Bond Governor
Fred A. Lafser Director
St. Louis Regional Office

UNSATISFACTORY FEATURES

None

DISCUSSION

All of the requirements specified in 40 CFR 262 for generators have been met. Due to waste management changes, Nixdorff-Lloyd no longer is regulated as a storage facility under 40 CFR 265. Eventually, if planned future changes and current process changes work as anticipated, Nixdorff-Lloyd will no longer be regulated under the Federal hazardous waste regulations.

The drum storage requirements specified under 40 CFR 264.175 and 10 CSR 25-7.050 (3) are no longer applicable for this facility. Apparently, the only waste to be stored in drums at the facility will be waste oil. This is regulated under 10 CSR 25-4.020 and does not require spill containment for the amounts generated by Nixdorff-Lloyd. If, however, any hazardous waste is generated at the facility and stored in drums, even if for less than ninety (90) days, spill containment will be required as specified in 10 CSR 25-7.050 (3). Mr. Hughes stated that plans have already been drawn up for a ten (10) drum capacity storage area.

RECOMMENDATIONS:

Update registration with both the MDNR and EPA when final hazardous waste management practices for the facility are known.

If you have any questions concerning this report, feel free to call.

APPROVED:

FDMaddox

F. Donald Maddox, P.E.
Regional Administrator
St. Louis Regional Office

PREPARED BY:

FDMaddox for

Kenneth M. Gambaro
Environmental Engineer
St. Louis Regional Office

FDM/KMG/bkl

CC: Central Office - Regional Office Program
Bernie Rains - Metropolitan Sewer District

UNSATISFACTORY FEATURES

None

DISCUSSION

All of the requirements specified in 40 CFR 262 for generators have been met. Due to waste management changes, Nixdorff-Lloyd no longer is regulated as a storage facility under 40 CFR 265. Eventually, if planned future changes and current process changes work as anticipated, Nixdorff-Lloyd will no longer be regulated under the Federal hazardous waste regulations.

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F. Donald Maddox, P.E.
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Environmental Engineer
St. Louis Regional Office

FDM/KMG/bkl

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RCRA CHECKLIST FOR INSPECTION OF TSD FACILITIES

Name of Facility: NIXDORFF - LLOYD CHAIN CO.

Address: 916 HOWARD ST.

ST. LOUIS, MO 63106

EPA TSD ID Number: MOD000010975

Facility Inspection Representative: ED HUGHES

Title : PROJECT ENGINEER

Telephone: (314) 421-2676

RO USE

Inspection File

No. _____

Reviewer _____

Date reviewed _____

Form "B"

SITE CHARACTERIZATION (Please denote if the facility presently treats, stores, or disposes of hazardous waste. Also, mark the appropriate sub-category that occurs at the particular facility.)

TREATER	STORER	DISPOSER
___ Filtration	___ Open Pile	___ Landfill operation
___ Incineration	___ Surface Impoundment	___ Land treatment
___ Thermal Reduction	✓ Drum	___ Surface Impoundment
___ Recycling/Recovery	___ Above ground tank(s)	___ Incineration
___ Chem/Phys/Bio Treatments	___ Below ground tank(s)	___ Other _____
___ Waste Oil	___ Other _____	
___ Reprocessing		
___ Solvent Recovery		
___ Other _____		

INSPECTION PROCEDURE

1. Does the facility generate hazardous wastes? **Yes** No

   Note: Please complete the generator's checklist if TSD facility generates hazardous wastes which are disposed off-site.

265.13(b) 2. Does the facility have in place a waste analysis plan? **Yes** No

   If so,

265.13(a) A. Does the plan enable facility personnel to identify hazardous wastes being handled by the facility? **Yes** No

265.13(c) B. Does the plan enable facility personnel to confirm that wastes actually received at the TSD facility are the wastes indicated on the generator's manifest form? **Yes** No

3. *Does the TSD facility have a 24-hour surveillance system which monitors and controls entry to the active portion of the facility? **Yes** No

	A. If not, does the facility have an artificial or natural boundary which surrounds active portions of the facility and, N/A	Yes	~~No~~
	B. A means to control entry at all times, i.e., gates, attendants, locked entrances, etc.?	Yes	~~No~~
265.14 (c)	4. *Does the TSD facility have a restricted access sign posted at each entrance to the active portion of the facility? (An example would be: "Danger - Unauthorized Personnel Keep Out!"	Yes	No
	If so,		
	A. Is the sign legible from a distance of 25 feet?	Yes	No
	B. Is the sign in English or any other foreign language predominant to the geographical area?	Yes	No
265.15(d) 265.15(b)	5. Does the TSD facility have an inspection log and a written schedule for inspecting all emergency equipment, security devices, and operating and structural equipment, important to the prevention, detection or response to environmental/ human health emergencies?	Yes	No
265.16(a)	6. Have facility personnel successfully completed a program of classroom training or on-the-job training in hazardous waste management procedures? on-going	Yes	No
265.16(d)	7. Does the TSD facility maintain a record of job titles for personnel that are involved with hazardous waste management and the name of the employee filling each job? in personnel files	Yes	No
265.16(d)(2)	8. Does the TSD facility have on record a written position description for each job title noted in Question #6?	Yes	No
265.16(d)(3)	9. Does the facility presently maintain a written description of the type and amount of introductory and continuing training for those employees noted in Question #6? on-going	Yes	No
265.32(a)	10. *Does the TSD facility have installed the following equipment:		
	A. An internal communications or alarm system capable of providing immediate emergency instructions to facility personnel if the hazardous waste storage area is threatened by fire or explosion?	Yes	No
	B. A device at the scene of hazardous waste TSD operations capable of summoning emergency assistance from Police, Fire departments, etc.?	Yes	No
	C. Fire control equipment and an adequate supply of fire fighting water or fire supression chemicals?	Yes	No
265.35	11. *Does the TSD facility have adequate aisle space to allow the unobstructed movement of personnel and equipment during emergencies? N/A	Yes	No

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265.50	12. Does the facility have a contingency plan which contains the following elements:		
265.52(c)	A. A detailed description of emergency procedures facility personnel will implement in response to fires, explosions, or unplanned releases of hazardous wastes to air, soil, and water?	Yes	No
265.52(d)	B. A detailed description of arrangements formally agreed to by local police, fire departments, and State and local emergency teams to provide assistance during emergency situations?	Yes	No
265.52(d)	C. A listing of names, addresses, and phone numbers of the TSD facility emergency response coordinators? Note: This listing should include names and phone numbers of emergency coordinators available on twenty-four hour basis.	Yes	No
265.52(e)	D. A list of appropriate emergency equipment necessary to cope with emergencies at the TSD facility?	Yes	No
265.52(f)	E. *An evacuation plan for the TSD facility if Management believes such a plan is a definite requirement for their particular TSD facility?	Yes	No
265.55	13. Does the facility have at all times at least one employee either on-call or on the site who is responsible for coordinating all emergency response measures?	Yes	No
	If so, please complete below:		
	Name: Ed Hughes		
	Title: Project Engineer		
	Telephone Number: 421-2676		
265.73	14. Does the TSD facility have a written operating record which contains the following information:		
265.73(b)(1)	A. A description and the quantity of each hazardous waste received and the method and date of treatment, storage or disposal?	Yes	No
265.73(b)(2)	B. The location of each hazardous waste within the facility and the quantity at each location?	Yes	No
265.73(b)(3)	C. Detailed records and results of waste analysis and treatability tests performed on wastes coming into the facility?	N/A Yes	No
265.73(b)(4)	D. Detailed operating summary reports and description of all emergency incidents that required the implementation of the facility contingency plan?	N/A Yes	No
265.73(b)(5)	E. Detailed records and results of inspections performed on facility emergency equipment, TSD systems, and hazardous waste areas?	Yes	No

265.73(b)(6) F. Detailed monitoring, testing, and analytical data to insure compliance with the regulations? N/A Listed wastes Yes No

15. Have the TSD facility operators initiated the preparation of written closure and post closure plans in order to meet the May 1981 target date for implemmntation of these requirements? Yes No

265.71 16. Does the TSD facility receive hazardous waste from off-site generators? Yes No

If yes, are the following procedures implemented:

A. Manifest copies are signed and dated ~~Yes No~~

B. A copy is given to the transporter ~~Yes No~~

C. A copy is sent to the generator ~~Yes No~~

D. A copy is returned and filed at the TSD facility ~~Yes No~~

Note: These requirements do not pertain to onsite facilities unless such facilities also receive hazardous wastes from off-site sources.

265.90 17. Has the owner or operator implemented a groundwater monitoring program if surface impoundments, landfills or land treatment technologies are utilized at the facility? N/A Yes No

Note: Plan not required until one year after effective date of regulations.

18. The inspector should check for the following conditions at the TSD facility:

A. Open fires Yes No

B. Fumes or gases Yes No

C. Leaks or corrosion in containers or other storage structures Yes No

D. Leachate to receiving streams Yes No

E. Malfunction of equipment Yes No

F. Bulging drums Yes No

G. Excessive heat generation from storage facilities, lagoons, storage piles, etc. Yes No

19. Please provide detailed comments on specific problems encountered during the TSD facility inspection. For instance, industry requests for clarification of specific rules and regulations and their applicability at the facility can be noted below or described in a separate memo attached to the inspector's checklist.

NIXDORFF HAS NOW BECOME ONLY A GENERATOR; NO LONGER A TSD. ALL WASTES PREVIOUSLY STORED HAVE BEEN REUSED OR DISPOSED OF.

Inspector's Name: KEN GAMBARO

Title: ENVIRONMENTAL ENGINEER

Agency: MDNR

Office location: ST. LOUIS

Date of Inspection: 4/29/82

Inspector's Name:

Title:

Agency:

Office location:

Date of Inspection:

RCRA CHECKLIST FOR INSPECTION OF GENERATORS

Name of Facility: NIXDORFF - LLOYD CHAIN CO.

Address: _____

_____

EPA Generator ID Number: _____

Facility Inspection Representative: _____

Title: _____

Telephone Number: _____

RO USE

Inspection file

No. _____

Reviewer _____

Date reviewed: _____

Form "A"

Pert. Regs. 40 C.F.R. Part:

1. Please provide a brief narrative explaining the type of work activity that occurs at the generator.

MANUFACTURE CHAIN, HARDWARE, AGRICULTURAL STAMPINGS, MULTISLIDE WIRE FORMS

2. Does the generator dispose of its wastes....

A. On-site

(Circle one or both)

(B.) Off-site

Note: if on-site, then checklist for both a generator and TSD facility must be completed if on-site more than 90 days.

3. What is the amount of hazardous waste (in kilograms) produced by the generator facility in a month? _____ in a year? _____
(If the amount is less than 1,000 kg/month, then the facility qualifies as a small generator and Form C should be completed instead of Form A.)

4. What categories of hazardous wastes result from the generator's facility? Please circle:

A. Ignitable wastes	Yes	(No)
B. Reactive wastes	Yes	(No)
C. Corrosive wastes	(Yes)	No
D. EP Toxic wastes	Yes	(No)
E. RCRA Listed Waste		

262.12 5. Is the generator presently... Circle one:

A. Treating hazardous waste? Yes No

B. Storing hazardous waste? Yes No

C. Disposing hazardous waste? Yes No

Note: if the generator performs any of the activities noted in Question 5, then the inspector must complete Form B, entitled "RCRA Checklist for inspection of hazardous waste treatment, storage and disposal facilities."

262.20 6. Is a manifest system currently in operation at the generator's facility so that offsite shipment of hazardous wastes can be tracked? Yes No

7. Please inspect the generator's manifest for the following information:

A. Is the TSD facility which receives a generator's hazardous waste identified by name, address, and EPA ID number? Yes No

262.20(c) B. Is an alternative facility designated in case of an emergency? N/A Yes No

C Is a serialized manifest document number included on the form? Yes No

262.20(a)(2) D Is the generator's name, address, telephone number and EPA ID number included on the form? Yes No

262.20(a)(3) E. Is the name and identification number of each transporter included on the form? Yes No

F. Is a description of the generator's hazardous waste to be treated, stored, or disposed included on the manifest? Yes No

G. Is the quantity of each waste by units of weight or volume and the type and number of containers loaded in the transport vehicle included on the manifest form? Yes No

H. Is the following certification noted on the generator's manifest form and is the certification acknowledged by the generator's signature?

"This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the available regulations of the DOT and EPA." Yes No

262.22 I. Are there adequate copies of the manifest available for generator, transporter, and TSD's? Yes No

8. Is hazardous waste being stored on-site by the generator for less than 90 days? * PICKLE LIQUOR IN PROCESS TANKS, WHEN DISPOSED, IT IS PUMPED DIRECTLY FROM TANKS TO TANK TRUCK Yes N/A No

If so,

262.34(a)(3) A. Is the date accumulation of waste began clearly marked on each storage container? N/A Yes No

262.34(a)(2)	B. Are storag n good condition, i.e., no corrosion, tructural deformations?	N/A	Yes	No
262.34(a)(4)	C. At the ti ion, are the storage containers clearly la ining a particular hazardous waste in a DOT regulations?	N/A	Yes	No
	9. Does the generato tablished contingency plan to deal with emerge y impact hazardous waste currently in storage at the		Yes	No
265.16(a)	10. Have facility per ssfully completed a program of classroom trainin job training in hazardous waste management proce	ON-GOING	Yes	No
265.16(d)	11. Does the generat aintain a record of job titles for personnel th ed with hazardous waste management and the nam oyee filling each job?		Yes	No
265.16(d)(2)	12. Does the generat ave on record a written position description for e noted in Question #11?		Yes	No
265.16(d)(3)	13. Does the facilit aintain a written description of the type and troductory and continuing training for those employ Question #11?		Yes	No
265.32(a)	14. *Does the generat ave installed the following equipment:			
	A. An internal s or alarm system capable of providing im ency instructions to facility personnel i s waste storage area is threatened by fire or		Yes	No
	B. A device at hazardous waste generator operations capable of s gency assistance from Police, Fire departments,		Yes	No
	C. Fire control nd an adequate supply of fire fighting wate upression chemicals?		Yes	No
265.35	15. *Does the genera ave adequate aisle space to allow the unobstruct personnel and equipment during emergencies?	N/A	Yes	No
265.50	16. Does the facilit tingency plan which contains the following element			
265.52(c)	A. A detailed de f emergency procedures facility personnel wi in response to fires, explosions, or unplanned hazardous wastes to air, soil, and water?		Yes	No
265.52(d)	B. A detailed d f arrangements formally agreed to by local departments, and State and local emergency te e assistance during emergency situations?		Yes	No

265.52(d) C. A listing of names, addresses, and phone numbers of the generator facility emergency response coordinators? Yes No

Note: This listing should include names and phone numbers of emergency coordinators available on twenty-four hour basis.

265.52(e) D. A list of appropriate emergency equipment necessary to cope with emergencies at the generator facility? Yes No

265.52(f) E. *An evacuation plan for the generator facility if Management believes such a plan is a definite requirement for their particular generator facility. Yes No

17. Please provide detailed comments on specific problems encountered during the inspection For instance, industry requests for clarification of specific RCRA rules and regulations and their applicability at the facility can be noted below or described in a separate memo attached to the inspector's checklist.

Inspector's Name: KEN GAMBARO

Title: ENVIRON. ENGINEER

Agency: MDNR

Office location: ST. LOUIS

Date of Inspection: 4/29/82

Inspector's Name:

Title:

Agency:

Office location:

Date of Inspection:

CONTINGENCY PLAN

1.0 FACILITY NAME: Nixdorff-Lloyd Chain Co.

ADDRESS: 916 Howard Street, St. Louis, Mo. 63106

PHONE NUMBER: 314/421-2676

1.2 Definition of "Contingency Plan":

A document setting out an organized, planned and coordinated course of action to be followed in case of fire, explosion or release of hazardous waste constituents which could threaten human health or the environment.

1.3 Description of hazardous waste materials confined at this facility:

This facility has no hazardous waste materials stored or confined within the factory building. 40 CFR 261.6 clearly covers the waste materials generated at this facility, therefore, not subject to the regulations under Parts 262 through 265 or Parts 122 through 124, and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Administrator promulgates regulations to the contrary.

1.4 A copy of this plan will be given to the local police and fire departments. The local hospital, state and federal emergency response teams will be contacted if required.

1.5 The following is a list of Response Groups.

LOCAL: St. Louis City and County Emergency Number - DIAL 911

STATE: Missouri Department of Natural Resources
Emergency Response Coordinator
2010 Missouri Blvd.
Jefferson City, Mo. 65101
Emergency Phone Number - 314/634-2436

FEDERAL: Federal EPA Emergency Response Team
25 Funston Road
Kansas City, Kansas 66115
Emergency Phone Number - 816/374-3778

HOSPITAL: Barnes Hospital
4949 Barnes Hospital Plaza
St. Louis, Mo. 63110
Phone - 314/454-2000

1.6 List of names, addresses and telephone numbers of all persons qualified to act as an Emergency Coordinator:

Primary Emergency Coordinator:

Edmund G. Hughes (Home Phone Number 314-739-8278)

11338 Gardenview Lane #3

St. Ann, Missouri 63074

Alternate Emergency Coordinator:

Bob Brauch (Home Phone Number 314-487-7359)

4130 SOUTHERN AIRE

St. Louis, MO. 63125

Alternate Emergency Coordinator:

Cal Broughton (Home Phone Number 618-654-7328)

86 Memorial Court

Highland, Ill. 62249

List of emergency equipment at the facility:

First Aid Room

Automatic Sprinkler System

OSHA Approved Fire Extinguishers in Each Area

1.8 Evacuation plan for facility personnel:

At the moment, a plan would be immaterial as there is no hazardous material stored in the building.

1.9 Signals are not necessary at this point in time.

2.0 Amendments to the Contingency Plan will be made as per 40 CFR 264.54 when necessary.

2.1 Duties of the Emergency Coordinator:

In the event the factory would store hazardous materials, at all times of facility operation there will be at least one (1) employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures.

.1 continued)

EMERGENCY PROCEDURES:

Whenever there is an imminent or actual emergency situation, the Emergency Coordinator will immediately:

Use the intercom or walk through the factory to notify all facility personnel; and

Telephone the Department of Natural Resources and any other local or state agencies with designated response roles if their help is needed.

Whenever there is a release, fire, or explosion, the Emergency Coordinator will identify the character, exact source, amount and aerial extent of any released materials. He will do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

The Emergency Coordinator will also assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment will consider both direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating or affixiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

If the Emergency Coordinator's assessment indicates that evacuation of local areas may be advisable, he will immediately

(.1 continued)

notify appropriate local authorities. He will be available to help appropriate officials decide whether local areas should be evacuated; and

He will immediately notify the Missouri Department of Natural Resources Emergency Response Coordinator (Phone: 314/634-2436), the EPA Region VII Emergency Planning and Response Branch (Phone: 816/374-3778), or the National Response Center, using their twenty-four (24) hour toll.free number (800/424-8802). The information report will include:

(I) Name and Telephone Number of Reporter.

(II) Name and Address of Facility.

(III) Time and Type of Incident (e.g., release, fire).

(IV) Name and Quantity of Material(s) involved, to the extent known.

(V) The extent of Injuries, if any; and

(VI) The possible Hazards to Human Health, or to the Environment, outside the Facility.

During an emergency, the Emergency Coordinator will take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur or spread to other hazardous waste at the facility. These measures would include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

If the facility stops operations in response to a fire, explosion or release, the Emergency Coordinator will monitor

for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, wherever this is appropriate.

After an emergency, the Emergency Coordinator will provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire or explosion at the facility.

The Emergency Coordinator will ensure that in the affected area(s) of the facility:

A. No waste that may be incompatible with the released material is treated, stored, or disposed of until clean-up procedures are completed; and

B. All emergency equipment listed in this plan is cleaned and fit for its intended use before operations are resumed.

The Emergency Coordinator will notify the Missouri Department of Natural Resources that the facility is in compliance with Paragraph (5)(G)8 (10CSR 25-7.011) of this rule before operations are resumed in the affected area(s) of the facility.

The Emergency Coordinator will note in the operating log the time, date, and details of any incident that requires implementing the Contingency Plan. Within fifteen (15) days after the incident, he will submit a written report on the incident as required in Subsection (6)(C) of this rule.

Should there be a spill from a hazardous waste container, the following list explains how to react.

CHROMIC ACID AND/OR CHROMATE SOLUTIONS.

Chromic acid is a brown powder which may be in acid solution. It cannot catch fire, but may ignite oxidizable or flammable materials. Contact can destroy tissue or cause severe burns. Should it spill in solid form, shovel it up and store for subsequent disposal, then flush the area with soda ash to neutralize. Body areas that have contacted chromic acid should be flushed with water and contaminated clothing removed.

CAUSTIC SODA, SODIUM HYDROXIDE OR ALKALINE SOAK CLEANING SOLUTIONS.

They cannot catch fire but may cause severe burns on contact. In case of spill or leak, keep people away. Shut off leak if without risk. If necessary to enter spill area, wear chemical goggles and full protective clothing, including rubber boots. Flush area with water. If a sodium hydroxide tank is exposed to fire, cool it with water. In case of contact, immediately flush skin or eyes with plenty of water for at least fifteen (15) minutes; remove contaminated clothing and shoes at once. Call a physician and keep patient at rest.

SULPHURIC ACID.

Oil of Vitriol is a colorless, brown, oily liquid with no odor. Although it cannot catch fire, contact with combustibles may cause fire. Explosive concentrations of hydrogen gas can accumulate inside metal tanks containing acid. If necessary to

2.2 continued)

(Sulphuric Acid continued)

enter spill area, wear chemical goggles and full protective clothing, including boots. Keep open flames away from tank openings and do not strike tank fittings with tools or other hard objects. Flush area with water spray, but do not get water in tank since this could cause a violent reaction. Cool outside of tank with water if exposed to fire, being careful to keep water out of tank. In case of contact, immediately flush skin or eyes with plenty of water for at least fifteen (15) minutes; remove contaminated clothing and shoes. Call a physician. Keep patient at rest.

HYDROCHLORIC ACID.

A clear, colorless-to-light-yellow, fuming liquid with an acrid odor, hydrochloric or muriatic acid cannot catch fire, but exposure can cause liquid burns and its vapors are extremely irritating. In case of a spill or leak, keep people away and upwind of the spill area. If required to enter spill area, wear self-contained breathing apparatus and full protective clothing, including boots. Flush area with water spray and cool tank with water if exposed to fire (although putting water inside acid tank should be avoided).

Exposure--remove to fresh air. If not breathing, apply artificial respiration and oxygen. If breathing is difficult, administer oxygen. Call a physician. In case of contact,

(2.2 continued)

(Hydrochloric Acid continued)

immediately flush skin with plenty of water for at least fifteen (15) minutes; remove contaminated clothing and shoes at once. Call a physician. Keep patient at rest.

WHAT TO DO IN CASE OF FIRE.

Fire Brigade porsonnel are designated to turn in a fire.

Employees will meet and be checked off at a designated safe location outside the buildings to determine whether anyone might be trapped inside.

Employees who are knowledgeable about the plant, its processes and chemicals, will familiarize fire officials with this information in advance. In case of fire, appointed individuals will be on hand to guide firemen to hose connections, warn of hazards and furnish information to expedite fire fighting.

The factory nurse will be assigned to dispense emergency medical supplies. Plating shops are protected with dry powder and CO_2 extinguishers.

CLOSURE PLAN

1. Closure (Ref. 265.197)

   Prior to the closure of this facility, which will be done within the framework of all laws, rules and regulations, federal and state, all hazardous waste and hazardous waste residues will be removed from tanks, discharge control equipment and discharge confinement structures.

2. The closure plan for this facility, under the present laws and regulations, would be very simple.

   A. Spent pickle liquor would be disposed of at a licensed resource recovery facility.

   B. Waste oil would be disposed of as in #A.

   C. Chromate solutions would be disposed of as in #A.

   D. Solvents would be disposed of as in #A.