TSD File Inventory Index

Date: January 9, 2001

Initial: CMGenevao

Facility Name: Manitowoc Ice, Inc. (One Folded Site)			
Facility Identification Number: WID 980 570 014			
A.1 General Correspondence		B.2 Permit Docket (B.1.2)	
A.2 Part A / Interim Status	X	.1 Correspondence	
.1 Correspondence	X	.2 All Other Permitting Documents (Not Part of the ARA)	
.2 Notification and Acknowledgment	X	C.1 Compliance - (Inspection Reports)	X
.3 Part A Application and Amendments	X	C.2 Compliance/Enforcement	X
.4 Financial Insurance (Sudden, Non Sudden)		.1 Land Disposal Restriction Notifications	
.5 Change Under Interim Status Requests		.2 Import/Export Notifications	
.6 Annual and Biennial Reports		C.3 FOIA Exemptions - Non-Releasable Documents	
A.3 Groundwater Monitoring		D.1 Corrective Action/Facility Assessment	
.1 Correspondence		.1 RFA Correspondence	
.2 Reports		.2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure		.3 State Prelim. Investigation Memos	
.1 Correspondence		.4 RFA Reports	
.2 Closure/Post Closure Plans, Certificates, etc		D. 2 Corrective Action/Facility Investigation	
A.5 Ambient Air Monitoring		.1 RFI Correspondence	
.1 Correspondence		.2 RFI Workplan	
.2 Reports		.3 RFI Program Reports and Oversight	
B.1 Administrative Record		.4 RFI Draft /Final Report	

Total - 1

.5 RFI QAPP		.7 Lab data, Soil Sampling/Groundwater	
.6 RFI QAPP Correspondence		.8 Progress Reports	
.7 Lab Data, Soil-Sampling/Groundwater		**D.5 Corrective Action/Enforcement**	
.8 RFI Progress Reports		.1 Administrative Record 3008(h) Order	
.9 Interim Measures Correspondence		.2 Other Non-AR Documents	
.10 Interim Measures Workplan and Reports		**D.6 Environmental Indicator Determinations**	
D.3 Corrective Action/Remediation Study		.1 Forms/Checklists	
.1 CMS Correspondence		**E. Boilers and Industrial Furnaces (BIF)**	
.2 Interim Measures		.1 Correspondence	
.3 CMS Workplan		.2 Reports	
.4 CMS Draft/Final Report		**F Imagery/Special Studies** (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	
.5 Stabilization		**G.1 Risk Assessment**	
.6 CMS Progress Reports		.1 Human/Ecological Assessment	
.7 Lab Data, Soil-Sampling/Groundwater		.2 Compliance and Enforcement	
D.4 Corrective Action Remediation Implementation		.3 Enforcement Confidential	
.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
.3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
.4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
.6 CMI Correspondence		.9 Environmental Justice	

Note: Transmittal Letter to Be Included with Reports.
Comments: Documents do not justify individual folder per schedule.

A.2 Part A/
Interim Status

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
5HW-13

SEP 25 1984

Charles C. West, Secretary/Treasurer
The Manitowoc Company, Inc.
500 South 16th Street
P. O. Box 66
Manitowoc, WI 54220

RE: Withdrawal of Part A
(Storage Fewer Than 90 Days)
FACILITY NAME: Manitowoc Equipment Works
U.S. EPA ID NO.: WID980570014

Dear Mr. West:

This is to acknowledge that the United States Environmental Protection Agency (U.S. EPA) has completed its review of your Part A Hazardous Waste Permit Application and your letter of September 6, 1984, requesting the withdrawal of your permit application. According to the information which you have submitted, your facility has accumulated wastes generated on-site for fewer than 90 days in containers or tanks since November 19, 1980, in accordance with 40 CFR Part 262.34. It is the opinion of this office, based on the information submitted, that your facility is not required to have a hazardous waste permit under Section 3005 of the Resource Conservation and Recovery Act at this time. Please be advised that you must ensure that your waste is handled in accordance with 40 CFR Part 262.34 (enclosed), and applicable State and local requirements.

You will retain your U.S. EPA Identification number, if you notified as a generator or transporter of a hazardous waste.

Please contact the Regulatory Analysis and Information Unit at (312) 886-6148 for assistance, if you have any questions. Please refer to "Withdrawal of Part A (Storage Fewer Than 90 Days)," in all correspondence on this matter.

Sincerely yours,

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Enclosure

cc: John D. West, President
WDNR

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF
5HW-13

AUG 28 1984

Rob Schnabl, Senior Staff Engineer
The Manitowoc Company, Inc.
500 South 16th Street
P. O. Box 66
Manitowoc, Wisconsin 54220

RE: Request for Information--Hazardous Waste Permit Review (Signature and Certification)
FACILITY NAME: The Manitowoc Co.
U.S. EPA ID NO: ~~WID006073183~~
WID 980 570 014

Dear Mr. Schnabl:

This is to acknowledge receipt of your letter of March 17, 1982, requesting the withdrawal of your Part A Hazardous Waste Permit Application. Your request was not signed and certified by an authorized person, in accordance with 40 CFR Part 270.11 (enclosed). Please resubmit your request, with the correct signature and certification, so that your withdrawal can be processed. Your request must contain a detailed explanation why the application should be withdrawn. Also, if at any time, since November 19, 1980, your operation included treatment, storage, or disposal of hazardous waste subject to 40 CFR Part 265, a closure plan must be filed with the withdrawal request. Requirements for closure are found in 40 CFR Part 265 Subpart G (enclosed).

If no response is received in this office within 30 days, we will assume your facility requires a permit. Accordingly, we will continue to process your application.

Please feel free to contact the Regulatory Analysis and Information Unit at (312) 886-6148 for assistance, if you have any questions. Please refer to "Request for Information--Hazardous Waste Permit Review (Signature and Certification)," in all correspondence on this matter.

Sincerely yours,

Karl J. Klepitsch Jr

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Enclosure

cc: John D. West, President

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
111 West Jackson Blvd.
CHICAGO, ILLINOIS 60604

DEC 9 1982

REPLY TO ATTENTION OF: RCRA ACTIVITIES

SCHNABL ROBERT SR STAFF ENG
MANITOWOC CO INC-MANITOWOC EQUIP WO
500 SOUTH 16 STREET
MANITOWOC WI 54220
FACILITY: 2110 SOUTH 26 STREET
LOCATION: MANITOWOC WI 54220
ID NO.: WIT560011074

Dear Applicant:

RE: U.S. EPA Identification Number Change

This is to inform you that the United States Environmental Protection Agency (U.S. EPA) will be changing your temporary (T) identification number to a permanent (D) one. The label below shows your current temporary number as "OLD T NO." and the new permanent number as "NEW D NO."

OLD I.D. NO.: WIT560011074

NEW I.D. NO.: WID980570014

In order to provide your facility with adequate time to convert to the permanent U.S. EPA identification number, we will make the change in our computer system effective January 1, 1983. This will allow you to use your temporary identification number until the end of the calendar year and, thus, cover all 1982 hazardous waste handled under one number for your annual report.

We have coordinated the identification number change with your State hazardous waste management office. The State has a listing of your old and new numbers.

Please contact Mr. Arthur Kawatachi of my staff at (312) 886-7449, if you have any questions regarding this matter.

Sincerely yours,

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

cc: Facility owner

FACILITY NAME
MANITOWOC EQUIPMENT WORKS

EPA ID NUMBER
WIT560011074

FACILITY OPERATOR
THE MANITOWOC COMPANY INC

FACILITY OWNER
THE MANITOWOC COMPANY INC

FACILITY LOCATION
2110 SOUTH 26 STREET
MANITOWOC WI 54220

PROCESS CODE	DESIGN CAPACITY	UNIT OF MEASURE
S01	1760.00000	C

KEY

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE	UNIT OF MEASURE	CODE
STORAGE:			GALLONS	G
			LITERS	L
CONTAINER	S01	G OR L	CUBIC YARDS	Y
TANK	S02	G OR L	CUBIC METERS	C
WASTE PILE	S03	Y OR C	GALLONS PER DAY	U
SURFACE IMPOUNDMENT	S04	G OR L	LITERS PER DAY	V
DISPOSAL:			TONS PER HOUR	D
			METRIC TONS\HOUR	W
INJECTION WELL	D79	G,L,U, OR V	GALLONS\HOUR	E
LANDFILL	D80	A OR F	LITERS\HOUR	H
LAND APPLICATION	D81	B OR G	ACRE-FEET	A
OCEAN DISPOSAL	D82	U OR V	HECTARE-METER	F
SURFACE IMPOUNDMENT	D83	G OR L	ACRES	B
TREATMENT:			HECTARES	G
			POUNDS\HOUR	J
TANK	T01	U OR V	KILOGRAMS\HOUR	K
SURFACE IMPOUNDMENT	T02	U OR V	TONS PER DAY	N
INCINERATOR	T03	D,W,E, OR H	METRIC TONS\DAY	S
OTHER	T04	J,P,N,S,U,V		

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

I. INSTALLATION'S EPA I.D. NO.	NONE ASSIGNED
I. NAME OF INSTALLATION	Manitowoc Equipment Works
II. INSTALLATION MAILING ADDRESS	500 South 16 Street Manitowoc, WI 54220
III. LOCATION OF INSTALLATION	2110 South 26 Street Manitowoc, WI 54220

PLEASE PLACE LABEL IN THIS SPACE

000109 AUG 26 80

No ID No.?

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C WID980570014

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F WID006073183	A	800818

I. NAME OF INSTALLATION

MANITOWOC EQUIPMENT WORKS

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 500 SOUTH 16 STREET

CITY OR TOWN	ST.	ZIP CODE
MANITOWOC	WI	54220

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 2110 SOUTH 26 STREET

CITY OR TOWN	ST.	ZIP CODE
6 MANITOWOC	WI	54220

IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, & job title)	PHONE NO. (area code & no.)
2 ROB SCHNABE-SR. STAFF ENGR.	414-684-6621 Ext. 2517

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 THE MANITOWOC COMPANY, INC.

DETACH

B. TYPE OF OWNERSHIP (enter the appropriate letter into box): F = FEDERAL; M = NON-FEDERAL — M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

- [X] A. GENERATION
- [ ] B. TRANSPORTATION (complete item VII)
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION (transporters only – enter "X" in the appropriate box(es))

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER (specify):

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

WID980570014

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.: WID006073183

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

EPA Form 8700-12 (6-80)

AUG 25 1980

CONTINUE ON REVERSE

WIT560011074

D. – FOR OFFICIAL USE ONLY

S													T/A	C
W	W	I	D	0	0	6	0	7	3	1	8	3	2	1
1	2											13	14	15

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

- [X] 1. IGNITABLE (D001)
- [ ] 2. CORROSIVE (D002)
- [ ] 3. REACTIVE (D003)
- [X] 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
Rob Schnabl	Rob Schnabl Sr. Staff Engr. - Plant Engr. Dept.	8-15-80

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER → ~~WIT560011074~~ REACKNOWLEDGEMENT

MANITOWOC EQUIPMENT WORKS
500 SOUTH 16 ST
MANITOWOC WI 54220

INSTALLATION ADDRESS → 2110 S 26 ST
MANITOWOC WI 54220

08/13/81

EPA Form 8700-12B (4-80)

THE MANITOWOC COMPANY, INC.
500 So. 16TH STREET - P. O. BOX 66 - PHONE 684-6621 AREA CODE 414
MANITOWOC, WISCONSIN 54220

September 6, 1984

RECEIVED
SEP 10 1984
WMD-RAIU
EPA, REGION V

US EPA - Region V
P.O. Box A3587
Chicago, IL 60690

Attention: Ms. Lisa Pierard Reply of: 5HW-13

Gentlemen:

Subject: The Manitowoc Company, Inc., and Manitowoc Equipment Works Withdrawal Request, Part A Hazardous Waste Permit Application

This letter is in reply to the letter received by The Manitowoc Company, Inc., from Karl Klepitsch, dated August 28, 1984, in reference to our letter dated March 17, 1982, (copy enclosed) which was not in accordance with 40 CFR Part 270.11.

The Manitowoc Company, Inc., and its subsidiaries are manufacturing firms and do not wish to treat, store, or dispose of any hazardous wastes on site. The Manitowoc Company, Inc., and its subsidiaries want to be classified as generators only. Therefore, please cancel the applications for Hazardous Waste Permits for the below listed facilities.

Bay Shipbuilding Corp.
605 North Third Avenue
Sturgeon Bay, WI 54235
EPA ID# WID044391712 G, TSD, PA, 9

The Manitowoc Company, Inc.
500 South 16 Street
Manitowoc, WI 54220
EPA ID# WID006073183 G, TSD, PA, 9

The Manitowoc Company, Inc.
2401 South 30 Street
Manitowoc, WI 54220
EPA ID# WID000808584 G, TSD, PA, 9

Manitowoc Equipment Works
2110 South 26 Street
Manitowoc, WI 54220
EPA ID# WID980570014 G, TSD, PA, 9

At no time was there any treatment, storage or disposal of hazardous wastes on site. Therefore, The Manitowoc Company, Inc., is not required to file a closure plan found in 40 CFR Part 265 Subpart G.

Sincerely,

THE MANITOWOC COMPANY, INC.

Charles C. West
Secretary/Treasurer

CCW/cmb

Enclosure

cc: R. Sturzl
R. Schlies

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F WID000808584 D

LABEL ITEMS

EPA I.D. NUMBER	WID000808584 WIT5600 11074
III. FACILITY NAME	Manitowoc Equipment Works
V. FACILITY MAILING ADDRESS	500 South 16 Street Manitowoc, WI 54220
VI. FACILITY LOCATION	2110 South 26 Street Manitowoc, WI 54220

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area*(s)* below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold—faced terms.**

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP Manitowoc Equipment Works

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*			
2 Schnabl, Rob Sr. Staff Engr.	414	684	6621	X - 2517

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 500 South 16 Street

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Manitowoc	WI	54220

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 2110 South 26 Street

B. COUNTY NAME

Manitowoc

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Manitowoc	WI	54220	

EPA Form 3510-1 (6-80)

NOV 19 1980

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
3585 (specify) Ice Cube machine manufacturer	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: The Manitowoc Company, Inc.

B. Is the name listed in Item VIII-A also the owner? ☐ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

Status: P (specify) Private

D. PHONE (area code & no.): A 414 684 6621

E. STREET OR P.O. BOX: 500 South 16 Street

F. CITY OR TOWN: Manitowoc

G. STATE: WI

H. ZIP CODE: 54220

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): N ---	D. PSD (Air Emissions from Proposed Sources): P ---
B. UIC (Underground Injection of Fluids): U ---	E. OTHER (specify): --- (specify)
C. RCRA (Hazardous Wastes): R ---	E. OTHER (specify): --- (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Manufacturer of commercial ice cube machines

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
John D. West President	John D. West	November 19, 19.

COMMENTS FOR OFFICIAL USE ONLY

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S F W I D 0 0 0 8 0 8 5 8 4 T/A C 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

C 8 — YR. 7 8 — MO. 0 9 — DAY 0 1

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

[ ] 2. NEW FACILITY *(Complete item below.)*

YR. — MO. — DAY

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S C DUP T/A C 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	S01	1760	G		7				
					8				
3					9				
4					10				

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

None

IV. DESCRIPTION OF HAZARDOUS WASTES

A. **EPA HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. **ESTIMATED ANNUAL QUANTITY** — For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non-listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. **UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. PROCESS CODES:
   For listed hazardous waste: For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K054	900	P	T03 D80	
X-2	D002	400	P	T03 D80	
X-3	D001	100	P	T03 D80	
X-4	D002				included with above

 CONTINUE ON PAGE 3

Continued from page 2.

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NOTE: Photocopy this page before completing it. If you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER *(enter from page 1)*			FOR OFFICIAL USE ONLY		
S		T/A C	S	T/A C	
W ~~W I D 0 0 0 8 0 8 5 8 4~~		1	W DUP	2	DUP

. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

LINE NO.	A. EPA HAZARD. WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	D001	1760	G	S01	
2	D006				Included above
3	D007				Included above
4	D010				Included above
5	D011				Included above
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTE (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

None

EPA I.D. NO. (enter from page 1)

S.												T/A	C.
F	W	I	D	0	0	0	8	0	8	5	8	4		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail)*.

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail)*.

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
44 04 21 N	087 40 54 N

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
C E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F	C G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
John D. West President	John D. West	November 19, 1980

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
Rob Schnabl Sr. Staff Engineer	Rob Schnabl	November 19, 1980

CONTINUE ON PAGE 5

Continued from page 4.

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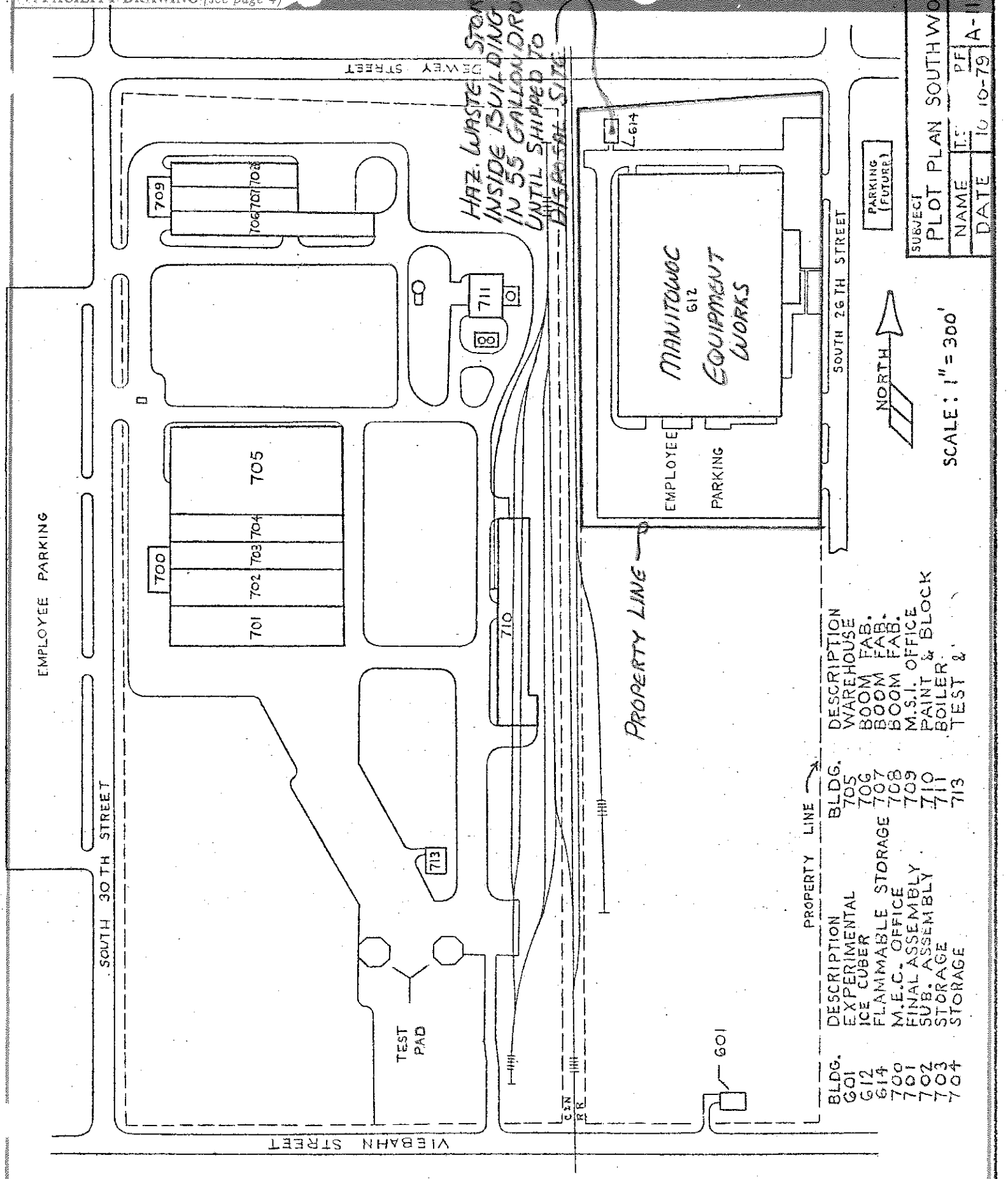
Form Approved OMB No. 158-S80004

V. FACILITY DRAWING *(see page 4)*



C.2 Compliance/ Enforcement

Waste, Pesticides and Toxics Division

Type of Document:
- ☐ Notice of Violation and Inspection Report/Checklist
- ☐ No Violation Letter and Inspection Report/Checklist
- ☐ Letter of Acknowledgment
- ☐ Information Request
- ☐ Pre-Filing and Opportunity to Confer
- ☐ State Notification of Enforcement Action
- ☒ Return to Compliance

Facility Name : MANITOWOC ICE

Facility Location: 2110 SOUTH 26th STREET

City: MANITOWOC **State:** WI

U.S. EPA ID# WID 980570014

Assigned Staff BRENDA WHITNEY **Phone:** 3-4796

Name	Signature	Date
Author	Brenda Whitney	7/5/06
Regional Counsel		
Section Chief	[illegible]	7-2-06
Branch Chief		

Directions/Request for Clerical Support:

After the Section Chief/Branch Chief signs this sheet and original letter:

1. Date stamp the cover letter;
2. Make four copies of the contents of this folder:
   - One copy for the assigned staff;
   - One copy for the section file;
   - One copy for the branch file; and
   - One copy for the official file.
3. Make any additional copies for cc's or bcc's.
4. Mail the original certified mail and distribute office copies and cc's and bcc's.
   Once the certified mail receipt is returned:
5. File the certified mail receipt (green card), with this sign-off sheet and the official file copy, and take to 7th floor RCRA file room;
6. E-mail staff the date that the letter was received by facility.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chris R. Meyer, P.E.
Manitowoc Ice, Inc
2110 South 26th St
Manitowoc, WI 54220

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly): Jon Musil

B. Date of Delivery: 7-13-06

C. Signature: X Jon Musil

☐ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7001 0320 0006 1449 0074

PS Form 3811, March 2001 Domestic Return Receipt

102595-01-M-1424

UNITED STATES POSTAL SERVICE

GREEN BAY WI 543

13 JUL 2006 PM 2 L

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

U.S. EPA
77 W. Jackson Blvd
Chicago, IL 60604

Attn: Brenda Whitney DE-9J

C010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 11 2006

REPLY TO THE ATTENTION OF:

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Chris R. Meyer, P.E.
Senior Plant Engineer
Manitowoc Ice, Inc.
2110 South 26th Street
Manitowoc, WI 54220

Re: Manitowoc Ice, Inc.
EPA I.D. No.: WID980570014

Dear Mr. Meyer:

On January 18, 2006, representatives of the United States Environmental Protection Agency (U.S. EPA) and the Wisconsin Department of Natural Resources (WDNR) inspected the Manitowoc Ice facility located at 2110 South 26th Street in Manitowoc, Wisconsin. In response to violations of the United States Code of Federal Regulations and the Wisconsin Administrative Code identified during the inspection, we issued a Notice of Violation to you on April 14, 2006. Subsequent to our Notice of Violation, you submitted information regarding the identified violations in correspondence dated May 9, 2006, and June 26, 2006.

This letter is to inform you that the U.S. EPA has reviewed the referenced responses and does not plan additional enforcement action at this time. This letter does not limit the applicability of either the requirements evaluated, or of other federal or state statutes or regulations. The U.S. EPA and WDNR will continue to evaluate your facility in the future. If you have any questions or concerns regarding this matter, please contact Brenda Whitney (formerly Oswald) of my staff at (312) 353-4796.

Sincerely,

Paul Little

Paul Little, Chief
Enforcement and Compliance Assurance Branch
Compliance Section 2
Waste, Pesticides, and Toxics Division

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

June 26, 2006

Ms. Brenda Oswald
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604

Manitowoc

Manitowoc Ice Division
Manitowoc Foodservice Group

Re: Notice of Violation
RCRA Compliance Inspection
Manitowoc Ice
EPA I.D. No.: WID980570014

Dear Ms. Oswald:

Enclosed with this letter is a copy of the tank integrity assessment report for the 4,000 gallon waste nitric acid tank located at our facility. This assessment was conducted on our behalf by RMT, Inc. as part of the corrective action taken by Manitowoc Ice in response to the above noted Notice of Violation which resulted from a January 18, 2006 unannounced hazardous waste inspection conducted by the USEPA and the WDNR.

RMT has determined that "... the existing tank system is adequately designed and has sufficient structural strength and compatibility with the stored waste nitric acid to ensure that it should not collapse, rupture, or fail under standard operating conditions and use."

Included in the report behind Tab 3 is a copy of the daily inspection log that RMT developed as part of the assessment project. Manitowoc Ice is now conducting the required daily inspections.

With the tank integrity assessment completed and the daily inspections being conducted all the issues cited in the NOV have been addressed.

Please contact me if you have any questions regarding the information I have provided.

Sincerely,

Chris R. Meyer, P.E.
Senior Plant Engineer
Manitowoc Ice, Inc.

Cc: Mr. Dan Brandl
Mr. Tim Reis

2110 South 26th Street
P.O. Box 1720
Manitowoc, WI 54221-1720
Tel: 920-682-0161
Fax: 920-683-7522
Sales Fax: 920-683-7589
Service/Parts Fax: 920-683-7585
Purchasing Fax: 920-683-7879
www.manitowocice.com

A Manitowoc® Company

WID980570014

744 Heartland Trail 53717-1934
P.O. Box 8923 53708-8923
Madison, WI
Telephone: 608-831-4444
Fax: 608-831-3334
www.rmtinc.com

June 22, 2006

Mr. Chris R. Meyer, P.E.
Plant Engineer
Manitowoc Ice Division
2110 South 26th Street
Manitowoc, WI 54220

Subject: RCRA Tank Integrity Assessment at Manitowoc Ice, Manitowoc, Wisconsin

Dear Mr. Meyer:

This letter presents RMT, Inc.'s (RMT's) integrity assessment for the existing 4,000-gallon waste nitric acid accumulation tank system located at the Manitowoc Ice Incorporated, Manitowoc, Wisconsin, facility. This letter report, which has been developed in accordance with our Proposal for RCRA Tank Integrity Assessment dated May 5, 2006, presents the site/project background, the tank system inspection/integrity examination, the tank system integrity assessment, the daily inspection form development, recommendations resulting from the assessment, and a professional engineer certification.

Background

To comply with Federal 40 CFR § 264.191 and 264.195 and Wisconsin NR 645.07 and 645.11 regulations, Manitowoc Ice retained RMT, Inc., to conduct an integrity assessment for the 4,000-gallon waste nitric acid tank system and to develop an inspection form to be used by maintenance personnel during daily tank system inspections.

Tank System Inspection/Integrity Examination

On June 2, 2006, Brian Sedgwick, P.E., P.G., a registered professional engineer licensed in the state of Wisconsin, performed a visual tank system inspection of the 4,000-gallon waste nitric acid tank system at the Manitowoc Ice facility. This inspection consisted of gathering tank system technical information as well as an integrity examination targeting any cracks, leaks, corrosion, or erosion with respect to tank system components.

Manitowoc Ice utilizes a 4,000-gallon polyethylene tank for ~33.6 percent nitric acid waste (D002 hazardous waste) generated during plating tank cleanouts. The Material Safety Data Sheet (MSDS) for this hazardous material is included as Attachment 1; the plant receives 67.2 percent nitric acid and dilutes it with water to create a ~33.6 percent nitric acid solution for use. The waste nitric acid tank system is located next to the concentrated nickel tank. The tank was likely originally installed at the plant some time prior to March 1991 and was moved to its current location in 2000 when the plating line underwent replacement.

The waste nitric acid tank has secondary containment in the form of a second surrounding tank (although not double-walled); both tanks are open to the atmosphere. The secondary tank has

½-inch-thick walls and appears to be made of polypropylene. Hardwood Line Manufacturing Company of Chicago, Illinois, is the manufacturer. The volume of the secondary tank is such that it could safely contain a primary tank failure. In addition, the tank is contained within a diked area consisting of coated concrete, which could also contain a spill, should the secondary tank rupture. Furthermore, should this dike system fail, the plating trenches are adjacent to the tanks and would collect any spilled liquid. The existing tank containment system does not, however, have a leak detection system; therefore, written integrity assessments, including integrity examinations, would be required.

During the June 2, 2006, tank system examination, visually accessible tank system components were observed and evaluated with respect to their physical condition. The primary components of the inspection consisted of the following:

- The tank was observed for obvious cuts, cracks, punctures, or leaks that could contribute to tank failure.
- Fittings were visually inspected for broken parts, excessive corrosion, deteriorated surface texture, cracks, wear marks, or other signs of potential leaks.
- Gaskets were visually inspected for signs of deterioration, including discoloration, bulging, or crazing.
- Valves, piping, pumps, and connections were visually inspected for signs of wear, damage via impacts, misuse, etc.

The pump used to transfer the waste nitric acid to the tank is a chemically-compatible P4 Wilden Proflow diaphragm pump, and Teflon-encapsulated Viton o-rings are used with this pump and regularly replaced. During the plating line upgrade conducted in 2000, a transfer pump was added to pump the waste nitric acid to the loadout bay for tanker truck loading; however, according to Manitowoc Ice personnel, this pump has likely not been used since the upgrade. The loadout is currently conducted via vacuum trucks, and the transfer pump is then bypassed.

The conveyance line consists of 2-inch-diameter, American Society for Testing and Materials (ASTM) F441 Schedule 80 CPVC with Spears Schedule 80 CPVC elbow fittings and Nibco Chemtrol CPVC ball valves used in line. Photos of the tank and the tank system's ancillary equipment are presented in Attachment 2.

In addition to the visual inspection, environmental stress cracking tests were performed at two locations on the tank. This test consists of selecting areas of the tank where stress cracking usually occurs first, and using a water-soluble marker, marking out an area 2 to 3 inches square. This area is completely inked, and the excess ink is then completely removed. A web or "crazing" of fine lines that have filled with ink are signs of stress cracking. Testing was conducted on the top of the tank, and on the side of the tank, near the upper tank seam. No evidence of stress cracking was observed

during the environmental stress cracking tests. Photos of the stress crack testing areas are also contained in Attachment 2.

Integrity Assessment

In accordance with 40 CFR §264.191, a written integrity assessment, reviewed and certified by a qualified Professional Engineer, must be conducted to determine if the tank system (including tank, pipes, fitting, pumps, etc.) is adequately designed, if it has sufficient structural strength, and if it is compatible with the waste(s) to be stored or treated, in order to ensure that it will not collapse, rupture, or fail.

For the integrity assessment of the existing waste nitric acid accumulation tank system, the following items were considered:

- Design standard(s), if available, according to which the tank and ancillary equipment were constructed
- Hazardous characteristics of the waste(s) that has been and will be handled
- Existing corrosion protection measures
- Documented age of the tank system, if available (otherwise, an estimate of the age)
- Results of a visual tank integrity examination that addresses cracks, leaks, and corrosion and erosion of tank system components

Given the material of the tank (polyethylene) and system, the compatibility with the stored waste (waste nitric acid), the corrosion protection, the estimated age of the tank components, visual examination, and the stress crack testing results, the existing tank system is adequately designed and has sufficient structural strength and compatibility with the stored waste nitric acid to ensure that it should not collapse, rupture, or fail under standard operating conditions and use.

Daily Inspection Report Form

In order to avoid the need for a hazardous waste storage license, a large quantity generator who stores hazardous waste in a tank system must inspect, where present, at least once per day, overfill/spill control equipment, the aboveground portions of the tank system, data from leak detection and monitoring equipment, the construction materials (*e.g.*, containment dikes), and the area immediately surrounding the externally accessible portion of the tank system, including secondary containment structures. The generator must document these inspections in the operating record of the facility.

Included as Attachment 3 is a Daily Inspection Form that will meet the intent of the daily inspection required under WDNR and RCRA regulations.

Recommendations

On the basis of technical information on the tank system, and the results of the inspection and assessment, the following recommendations are made:

- Initiate and document daily inspections of the waste nitric acid tank system using the attached inspection reporting form.
- Initiate a tank system integrity assessment program, consisting of an inspection and the completion of a written integrity assessment on the existing waste nitric acid tank system, reviewed and certified by a qualified Professional Engineer every 3 years (or as an alternative, install an automatic leak detection system that would meet 40 CFR §264.193 requirements for such a detection system).

Professional Engineer Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and believe, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Brian S. Sedgwick
Name of Professional Engineer

Signature

34732
Registration Number

Wisconsin
State

June 22, 2006
Date

Seal

WISCONSIN
BRIAN S.
SEDGWICK
E-34732
BELLEVILLE
WI
PROFESSIONAL ENGINEER

6/22/06

My license renewal date is July 31, 2006.

Sincerely,

RMT, Inc.

Brian Sedgwick, P.E., P.G.
Project Engineer

Attachments: Attachment 1: Nitric Acid Material Safety Data Sheet
Attachment 2: Photos
Attachment 3: Daily Inspection Form

Attachment 1

Nitric Acid Material Safety Data Sheet

NITRIC ACID 42 DEG.

MSDS ID: AC0042

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : NITRIC ACID 42 DEG.
MSDS ID : AC0042
CHEMICAL NAME SYNONYMS : Nitric Acid; Hydrogen Nitrate; Azotic Acid; Aqua Fortis; Engravers Acid
CAS NUMBER : 7697-37-2
CHEMICAL FAMILY : Inorganic Acid
FORMULA : 67.2 % HNO3

DISTRIBUTED BY:
Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency # - (414) 277-1311
CHEMTREC Emergency # - (800) 424-9300

MANUFACTURED BY: PCS Sales; Nitrochem; Royster-Clark; PVS Chemicals

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	OSHA HAZARD	% BY WT.
Nitric acid	7697-37-2	YES	67.2 % x 0.5
Water	7732-18-5	NO	32.8 % diluted

3. HAZARDS IDENTIFICATION

∴ ~ 33.6%

PHYSICAL STATE: Liquid.
COLOR : Clear. Colorless to faint yellow.
ODOR : Acrid.

EMERGENCY OVERVIEW: CORROSIVE! STRONG OXIDIZER. Causes severe burns to eyes, skin, and respiratory tract. Harmful or fatal if swallowed. Avoid breathing vapor and mist. Contact with other material may cause fire.

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:
Eyes. Skin. Inhalation. Ingestion.

TARGET ORGANS:
Eyes. Skin. Respiratory System. Teeth.

EYE CONTACT:
CORROSIVE-Causes severe irritation and burns.
Low concentrations of vapor or mist may cause: irritation. conjunctivitis.
May cause: pain. corneal opacity. corneal ulceration. permanent eye damage. blindness.

SKIN CONTACT:
CORROSIVE-Causes severe irritation and burns.
Contact causes yellowish skin discoloration. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Prolonged and

3. HAZARDS IDENTIFICATION (Cont.)

repeated exposure to dilute solutions may cause irritation, redness, pain and drying and cracking of the skin.

SKIN ABSORPTION:
No absorption hazard expected under normal use.

INHALATION:
CORROSIVE-Causes severe irritation and burns.
May irritate: nose. throat. mucous membranes. Inhalation of dust or mists can cause damage to the upper respiratory tract and lung tissue depending upon the extent of exposure. Mists of 2 to 5 ppm in 8 hours may cause symptoms of lung damage. Symptoms from inhalation of Nitric Acid vapor and Nitrogen Oxides may be delayed; vapor concentrations may cause severe breathing difficulties for up to 30 hours. Nitrogen Oxide poisoning, pulmonary edema and bronchopneumonia may also occur at elevated concentrations. Chronic exposure may cause: dental erosions.

INGESTION:
CORROSIVE-Causes severe irritation and burns.
May cause damage to the: mouth. throat. esophagus. stomach. digestive tract. May cause: pain. nausea. vomiting. death. Erosion of teeth is possible.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO PRODUCT:
Lung disorders. Skin disorders.

OTHER:
None known.

CANCER INFORMATION:
This product does not contain greater than 0.1% of the known or potential carcinogens listed in NTP, IARC, or OSHA.

POTENTIAL ENVIRONMENTAL EFFECTS:
See Section 12.

4. FIRST AID MEASURES

EYE CONTACT:
Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

SKIN CONTACT:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
Do not reuse clothing and shoes until cleaned.
Do not apply oils or ointments unless ordered by the physician.

INHALATION:

4. FIRST AID MEASURES (Cont.)

Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:
If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Several glasses of milk or several ounces of milk of magnesia may be given for their soothing effect. Do not use chemical antidotes or neutralizers.

NOTE TO PHYSICIANS: If inhaled, keep patient under observation for development of latent pulmonary damages (at least 30 hours).

5. FIRE FIGHTING MEASURES

FLASH POINT: N.A.
FLAMMABILITY LIMITS: LEL: N.A. UEL: N.A.
AUTOIGNITION TEMPERATURE: N.A.

'TINGUISHING MEDIA:
For fires in area use appropriate media. For example: Water spray. Dry chemical. Carbon dioxide. Alcohol foam.

FIRE FIGHTING METHODS:
Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors.
Use flooding amounts of water spray or other suitable agent for fires adjacent to non-leaking tanks or other containers of Nitric Acid. Do not use solid water streams near ruptured tanks or spills. Product generates heat upon addition of water, with possible spattering. Run-off from fire control may cause pollution. Neutralize run-off with Lime, Soda Ash, etc., to prevent corrosion of metals and formation of Hydrogen gas.

FIRE AND EXPLOSION HAZARDS:
STRONG OXIDIZER.
This product may react with certain metals to produce flammable Hydrogen Gas. Increases the flammability of combustible, organic and readily-oxidizable materials. Can ignite these and many organic materials such as wood, solvents, etc. May react explosively with metallic powders, carbides, hydrogen sulfide and turpentine.

HAZARDOUS COMBUSTION PRODUCTS:
Nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEAN-UP PROCEDURES:
CORROSIVE MATERIAL. STRONG OXIDIZER. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.
Contain spill, place into drums for proper disposal. Flush remaining area with water and neutralize with Soda Ash, Lime or Limestone and dispose of properly. (Adequate ventilation required to eliminate any nitrogen oxides emitted.); If soda ash or limestone is used, carbon dioxide will be emitted. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

STORAGE:
CORROSIVE MATERIAL. STRONG OXIDIZER. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers.
Diking of storage tanks is recommended. Avoid storage on wood floors or near wooden walls, etc.. Do not freeze.

HANDLING:
Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCE OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Local exhaust ventilation, process enclosures, or other engineering controls are imperative when handling or using this product to avoid overexposure. Avoid creating dust or mist. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

RESPIRATORY PROTECTION:
Respiratory protection must be worn when handling this product.
If exposure limits are exceeded, wear: NIOSH-Approved full face supplied air respirator for Nitric Acid or Nitrogen Oxide gases or mists. Note: Cartridge or cannister respirators are not suitable for Nitrogen Oxide use. DO NOT USE chemical cartridge respirators with oxidizable sorbants. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)

and must be followed whenever workplace conditions require a respirator's use.

EYE/FACE PROTECTION:
Wear chemical safety goggles and a full face shield while handling this product.
Do not wear contact lenses.

SKIN PROTECTION:
Prevent contact with this product. Wear gloves and protective clothing depending on condition of use.
Protective gloves: Acid-proof. Neoprene. Gauntlet-type. Polyvinyl chloride.

OTHER PROTECTIVE EQUIPMENT:
Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Rubber boots. Protective clothing. Full-rubber acid suit.

GENERAL HYGIENE CONSIDERATIONS:
Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

EXPOSURE GUIDELINES:	---------OSHA---------		---------ACGIH----------	
COMPONENT	PEL	STEL/C	TWA	STEL/C
Nitric acid	2 ppm	Not Estab.	2 ppm	4 ppm
	2 ppm+	4 ppm+		
Water	Not Estab.	Not Estab.	Not Estab.	Not Estab.

NOTE: + Vacated 1989 OSHA PEL(s).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (DEG. F)	: 248	SPECIFIC GRAVITY:	~1.408 @ 60F
FREEZING POINT (DEG. F)	: -25	% VOLATILE (WT%):	N.D.
MELTING POINT (DEG. F)	: N.D.	EVAPORATION RATE:	N.D.
VAPOR PRESSURE (MM HG)	: 9.2 @ 25C	(nBuAc=1)	
VAPOR DENSITY (AIR=1)	: N.D.	VOC (WT%)	: 0
SOLUBILITY IN WATER	: Complete	VOC (LBS/GAL)	: 0
pH	: < 1		

10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal conditions.

CONDITIONS TO AVOID:
Unstable with heat; releases toxic gases. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product.

10. STABILITY AND REACTIVITY (Cont.)

INCOMPATIBILITY:
Alkalies. Metals such as aluminum, zinc, tin, etc. Metallic powders. Turpentine. Organic Acids. Readily-oxidized materials. Cyanides. Sulfides. Carbides. Combustible materials. Organic materials. Alcohols. Hydrogen sulfide.

HAZARDOUS DECOMPOSITION PRODUCTS:
Nitrogen oxides. May react with certain metals to produce flammable hydrogen gas. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides, carbides, etc.

HAZARDOUS POLYMERIZATION:
Will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

LD50 ORAL : Human LDLo: 430 mg/kg
LD50 SKIN : No Data
LC50 INHALATION: Rat: 65-67 mg/m3
Rat LCLO: 50 ug/m3/4H/3D-I

Eye Effects: Corrosive to eyes.
Skin Effects: Corrosive to skin.
Highly toxic by inhalation as defined by OSHA. Based on toxicity data for other acids (i.e., sulfuric and phosphoric), not expected to be toxic by oral exposure as defined by OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:
Nitric acid can cause vegetation kill and contribute to eutrophication. This product has been determined to be moderately toxic to aquatic organisms per USEPA criteria.

CHEMICAL FATE INFORMATION:
This product has a low potenial of bio-accumulation. Soluble in water and highly mobile in soil.

13. DISPOSAL CONSIDERATIONS

HAZARDOUS WASTE NUMBER: D002

DISPOSAL METHOD:
Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations.
If approved, neutralize material and flush to sewer. Neutralized waste must be disposed of in accordance with applicable federal, state and local disposal regulations. Waste may have to be disposed of by an approved contractor. If neutralized waste contains water dissociable nitrate

13. DISPOSAL CONSIDERATIONS (Cont.)

compounds in aqueous solution, it is subject to the reporting requirements of SARA Section 313. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

14. TRANSPORT INFORMATION (Not meant to be all inclusive)

DOT (Department of Transportation):
- Proper Shipping Name : NITRIC ACID
- Hazard Class : 8
- Identification Number : UN2031
- Packing Group : II
- Label Required : CORROSIVE
- Reportable Quantity (RQ): 1000# (Nitric Acid).

15. REGULATORY INFORMATION

FEDERAL REGULATIONS:

TSCA INVENTORY STATUS:

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA TITLE III SECTION 311/312 CATEGORY:
- IMMEDIATE (ACUTE) HEALTH HAZARD : YES
- DELAYED (CHRONIC) HEALTH HAZARD : YES
- FIRE HAZARD : YES
- SUDDEN RELEASE OF PRESSURE HAZARD: NO
- REACTIVE HAZARD : NO

SARA SECTION 302/304/313/HAP:

COMPONENT	RQ (LBS) (*1)	RQ (LBS) (*2)	TPQ (LBS) (*3)	SEC 313 (*4)	HAP (*5)
Nitric acid	1000	1000	1000	YES	NO
Water	N.A.	N.A.	N.A.	NO	NO

FOOTNOTES

*1 = CERCLA Reportable Quantity
*2 = SARA Reportable Quantity
*3 = SARA EHS Threshold Planning Quantity
*4 = SARA 313 Toxic Chemical/Category
*5 = U.S. EPA Hazardous Air Pollutant

STATE REGULATIONS:

CALIFORNIA--The following components are listed under Prop 65:
None.

WISCONSIN--The following components are listed as a Wisconsin HAP:
Nitric acid.

16. OTHER INFORMATION

HMIS RATING SYSTEM		NFPA RATING SYSTEM	
Health	: 3*	Health	: 4
Flammability	: 0	Flammability	: 0
Reactivity	: 1	Reactivity	: 0
* = Chronic Health Hazard		Special Hazard	: OX

MSDS ABBREVIATIONS:
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS PREPARED BY: NAO

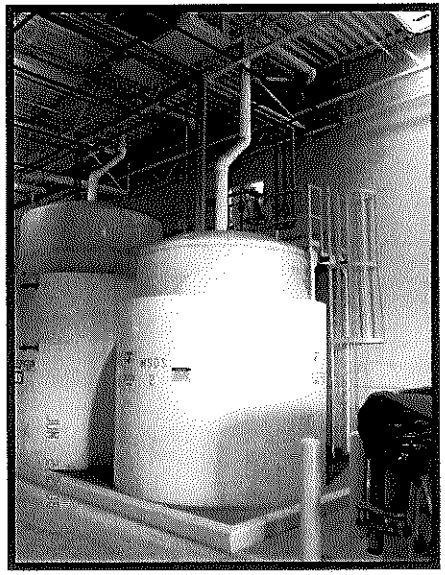
REASON FOR REVISION: Change(s) made in Sections 1, 3, 6, 8, 9, 11, 12, 13 and 16.

** **
The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as a warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.
** **

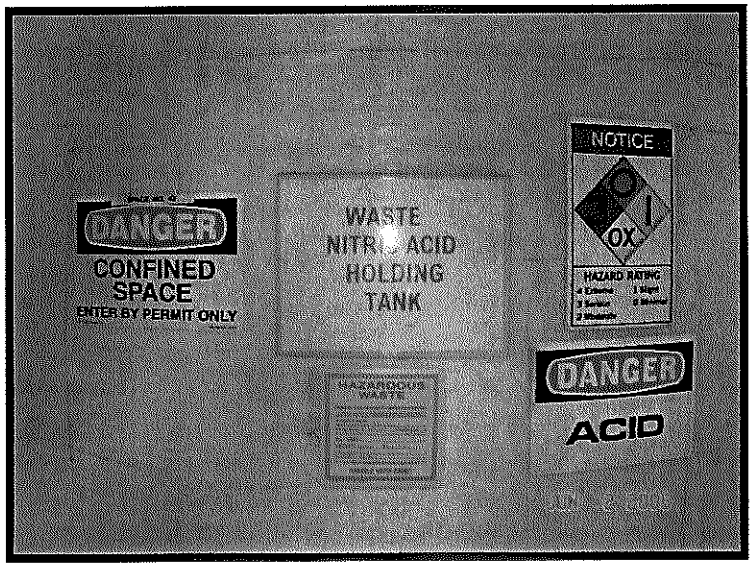
2

Attachment 2

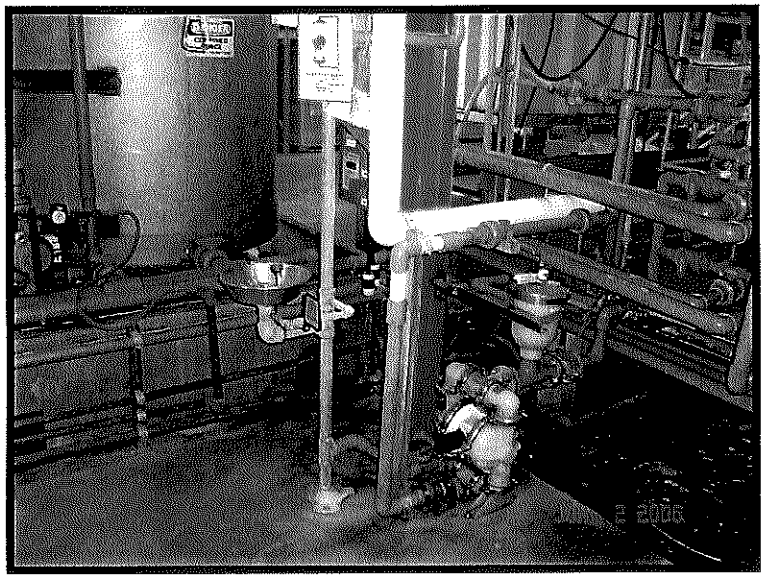
Photos



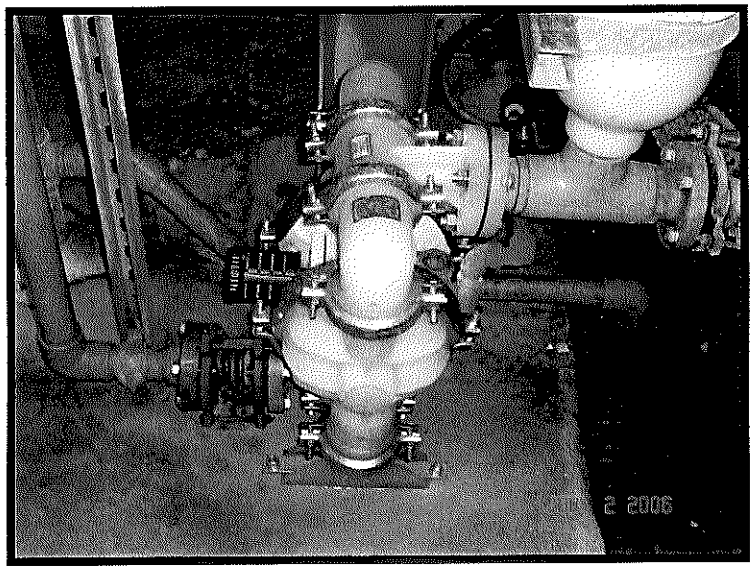
4,000 Gallon Waste Nitric Acid Tank and Containment, Access Platform Behind Tank



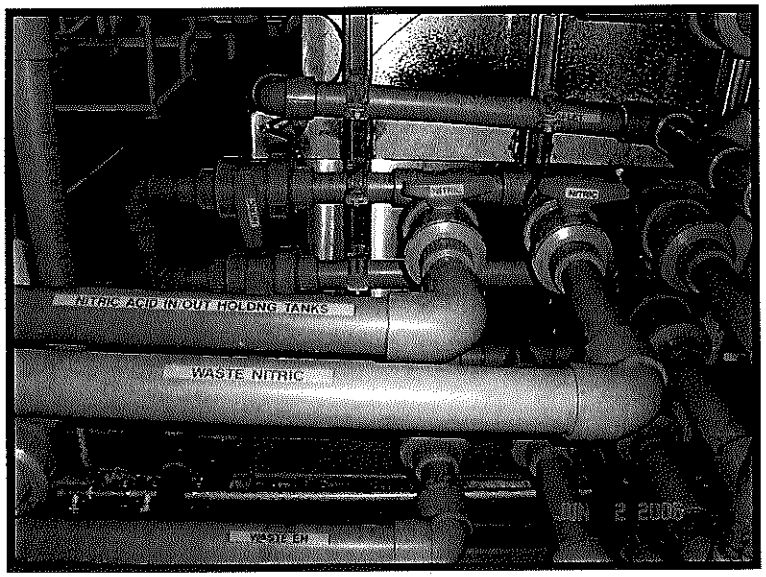
4,000 Gallon Waste Nitric Acid Labeling



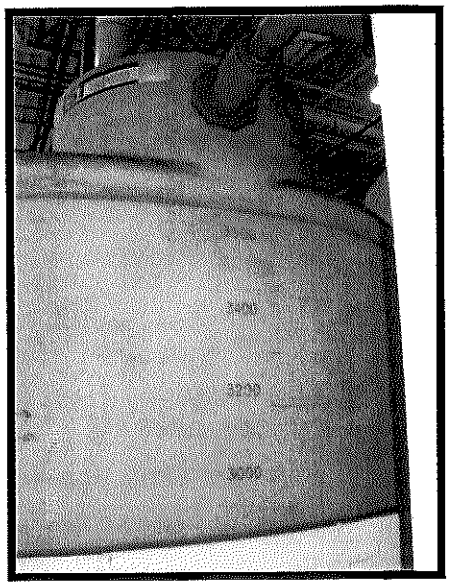
Wilden P4 Transfer Pump, (pumps from plating line to waste tank)



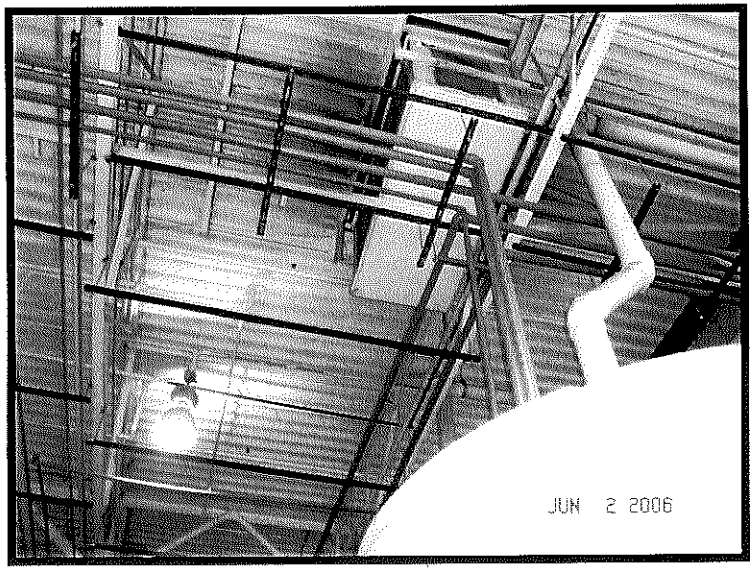
Wilden P4 Transfer Pump, close-up



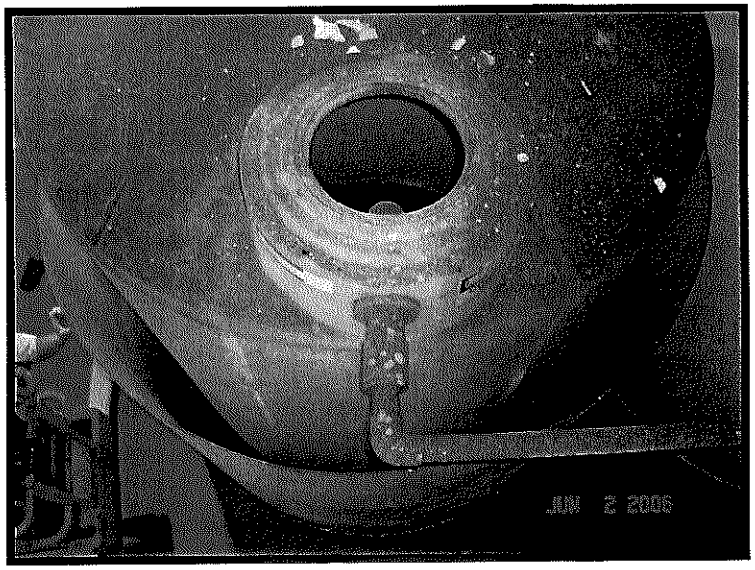
Line/Valve from Transfer Pump Going to Waste Tank



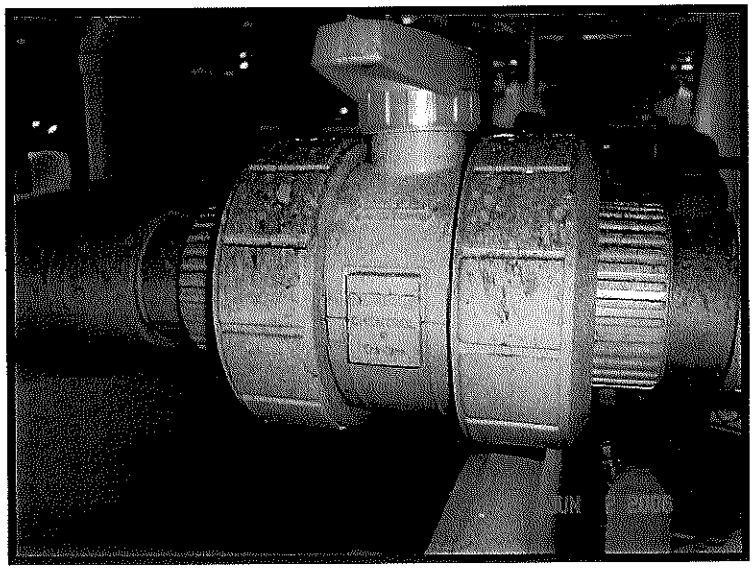
Waste Tank Level Markings



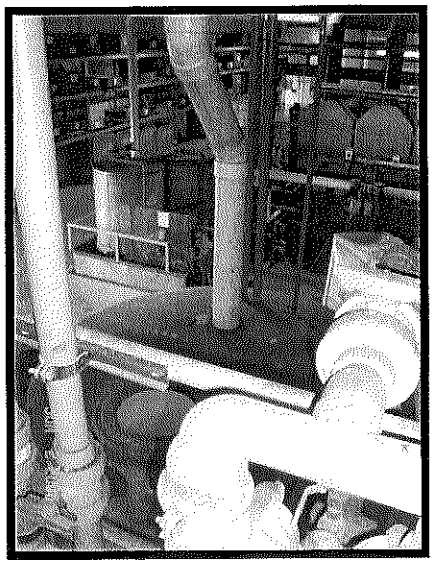
Schedule 80 CPVC Lines into 4,000 Gallon Waste Nitric Acid Storage Tank



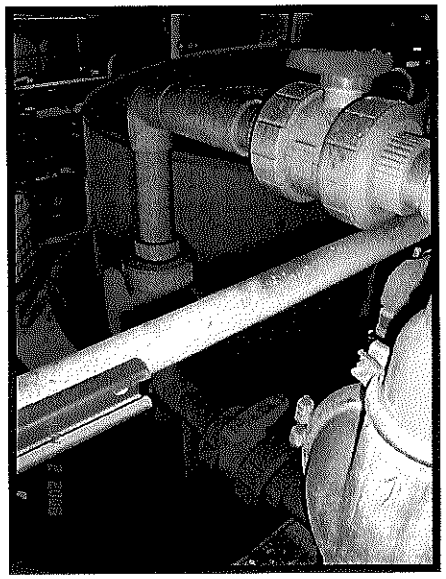
4,000 Gallon Waste Nitric Acid Storage Tank Top View (from Overhead Platform)



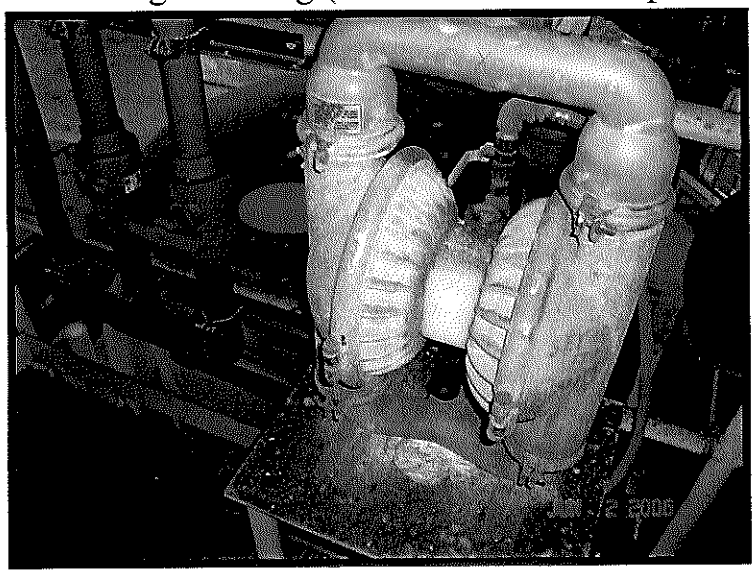
Typical Valving, (Nibco Chemtrol CPVC Ball Valve)



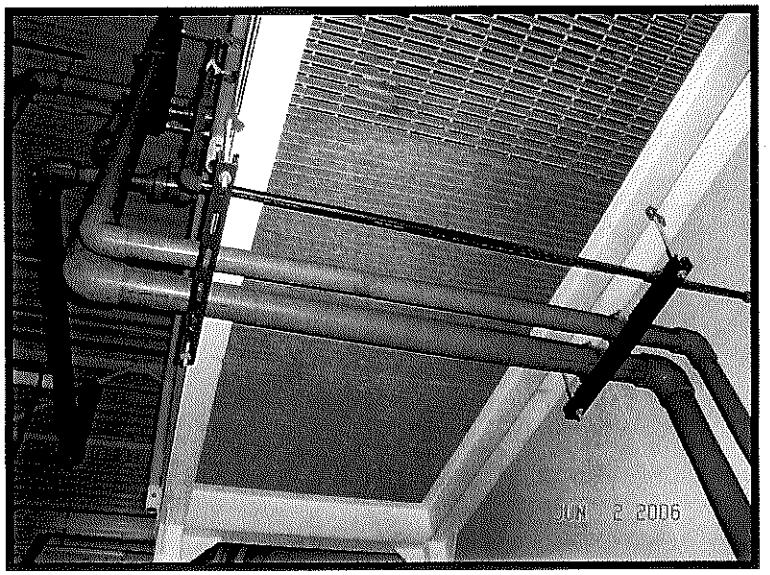
Waste Tank Top, Lines, Load-out Transfer Pump and discharge Valving (view from overhead platform)



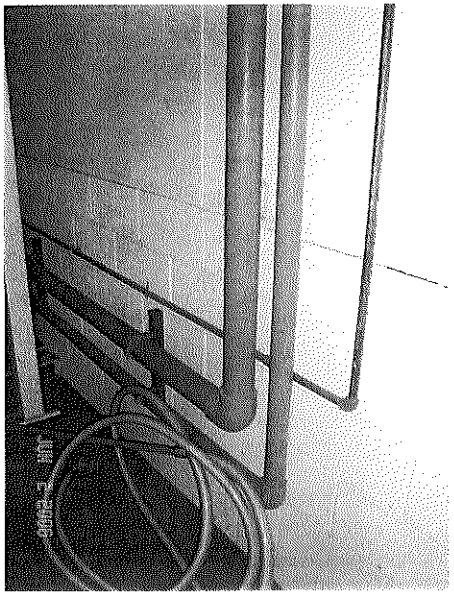
Load-out Valving and portion of Load-out Transfer Pump (M8 Wilden Pump, not used/bypassed)



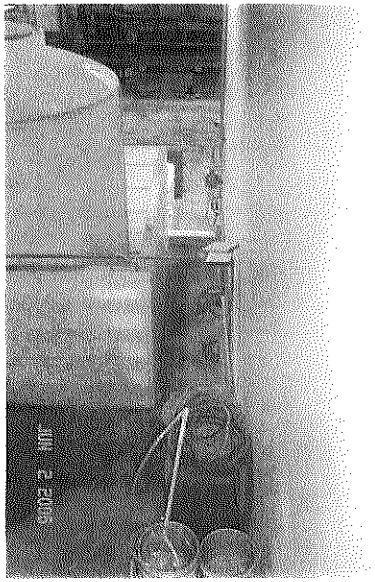
M8 Wilden Load-out Assistance Pump, not currently used/bypassed due to typical vacuum load-out truck use.



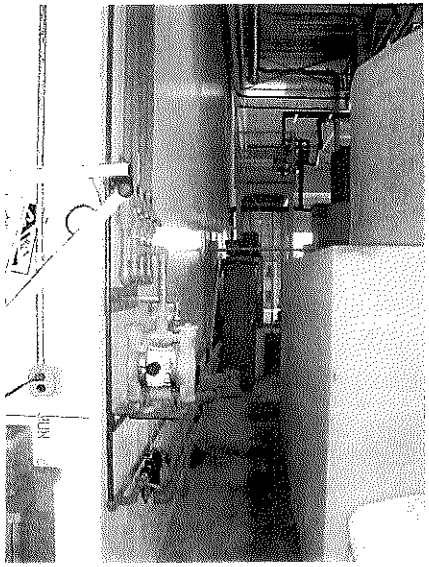
Load-out Line running under overhead platform



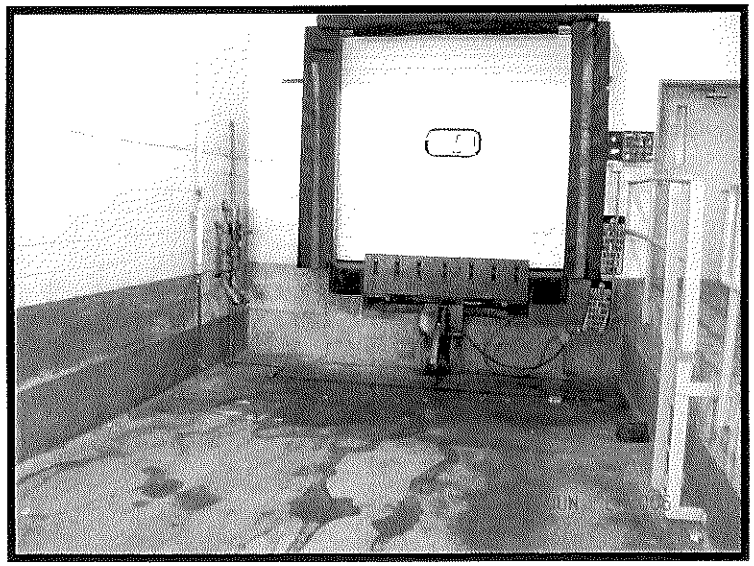
Loadout Line, view under overhead platform



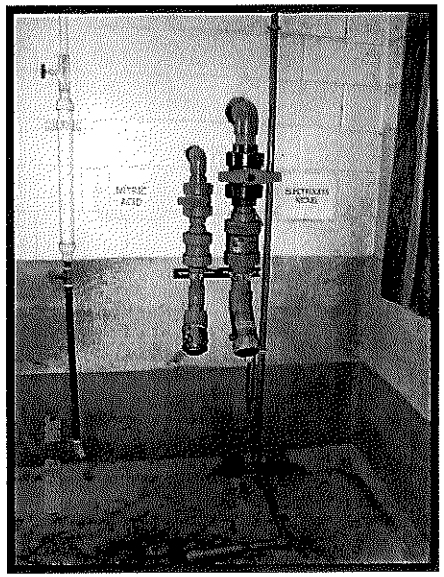
Loadout Line, view from overhead platform



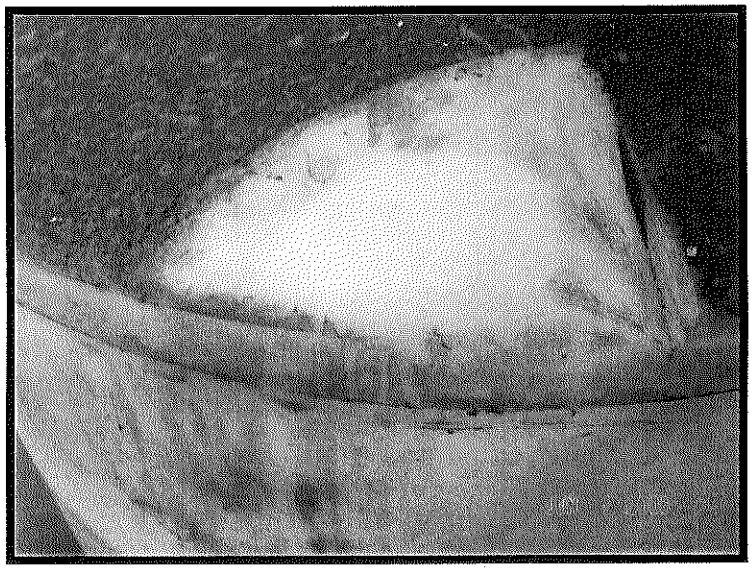
Loadout Line, view from load-out wall penetration to overhead platform/tank area



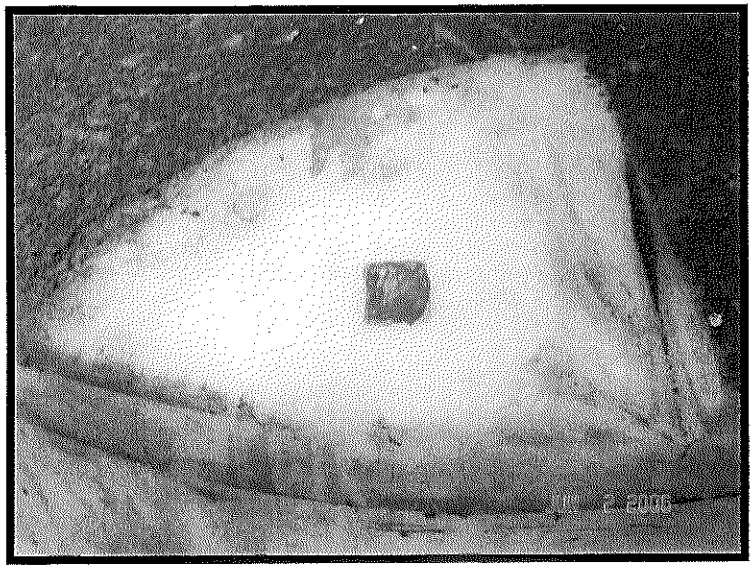
Load-out Dock (other side of wall penetration)



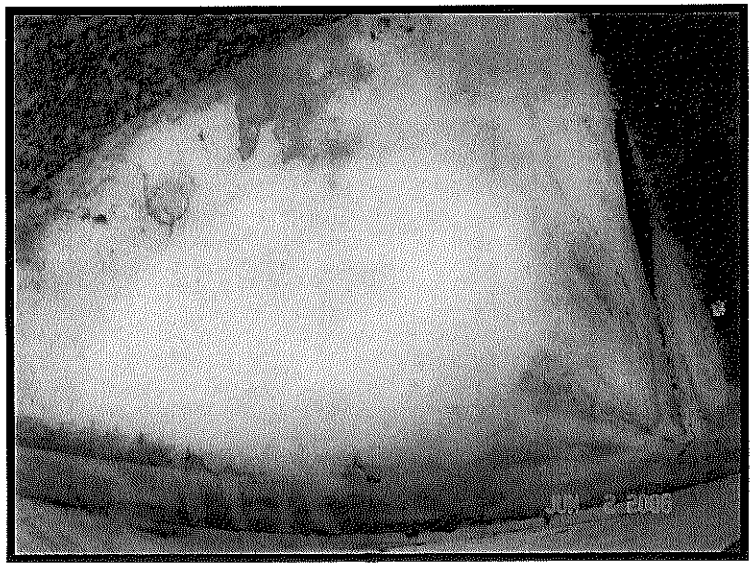
Load-out Termination, Waste Nitric Acid Load-out on Left



Waste Tank Top Prepared for Environmental Stress Testing



Tank Top Stress Testing Patch Marking



Tank Top Stress Testing Result (no evidence of stress damage, cracking, or permeation damage)

Waste Tank Side Prepared for Environmental Stress Testing

Tank Side Stress Testing Result (no evidence of stress damage, cracking, or permeation damage)

3

Attachment 3

Daily Inspection Form

Hazardous Waste Tank System Daily Inspection Log

(as per 40 CFR 264.195 and NR 645.11)

Site Location: Manitowoc Ice **Tank System:** _____ **Month:** _____ **Year:** _____

Site Address: 2110 South 26th Street, Manitowoc, WI **Date of last waste nitric acid removal:** _____

Day	Is secondary containment free of waste and liquid?		Is the system free of corrosion and evident damage?		Are pipes, valves, and pumps free of leaks and in good condition?		Is the area immediately surrounding the tank system free of signs of erosion or releases?		Does the tank have at least 2 ft of free board?		Is leak detection program/ equipment working?			Inspected By:	Comments:
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	N/A		
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When completed, return form to Mr. Chris Meyer

Inspection records to be retained for a minimum of 3 years.

NR 645, Section 11 - Inspections.

(1) The owner or operator shall develop and follow a schedule and procedure for inspecting overfill controls.

(2) The owner or operator shall inspect at least once each operating day:

(a) Overfill and spill control equipment, including waste feed cutoff systems, bypass systems and drainage systems to ensure that they are in good working order;

(b) The aboveground portions of the tank system, if any, to detect corrosion or releases of waste;

(c) Data gathered from monitoring and leak detection equipment, including pressure or temperature gauges and monitoring wells to ensure that the tank system is being operated according to its design; and

(d) The construction materials and the are a immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste.

Note: Signs of release of hazardous waste would include wet spots and dead vegetation.

(3) The owner or operator shall inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(a) The proper operation of the cathodic protection system shall be confirmed within 6 months after initial installation and annually thereafter; and

(b) All sources of impressed current shall be inspected or tested or both, as appropriate, at least bimonthly.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard," Recommended Practice (RP-02-85) -Control of External Corrosion on Metallic Buried, Partially Buried or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection

(4) The owner or operator shall document in the operating record of the facility each inspection of those items in subs. (1) to

May 9, 2006

Ms. Brenda Oswald
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604

Manitowoc

Manitowoc Ice Division
Manitowoc Foodservice Group

Re: Notice of Violation
RCRA Compliance Inspection
Manitowoc Ice
EPA I.D. No.: WID980570014

Dear Ms. Oswald:

This letter is to inform you of the action Manitowoc Ice has taken, or is taking, in response to the above noted Notice of Violation which resulted from a January 18, 2006 unannounced hazardous waste inspection conducted by the USEPA and the WDNR.

Regarding Items 1 and 2 of the NOV, Manitowoc Ice has hired RMT, Inc. located in Madison Wisconsin to develop a checklist for daily inspections and to perform the tank integrity assessment. The required daily inspections will begin when we receive the checklist from RMT and the employees who will be performing these inspections have been trained. It is anticipated that this work will be completed before the end of June 2006. I have attached a copy of RMT's proposal, with the authorizing signature, for your file.

Regarding Item 3 of the NOV, another copy of manifest WIK391633 has been sent to the Wisconsin Department of Natural Resources. A copy has also been included with this response for your file.

Regarding Item 4 of the NOV, Manitowoc Ice will establish compliance with the conditions for a license exemption as outlined in the NOV and therefore will not apply for a hazardous waste storage license.

Please contact me if you have any questions regarding the information I have provided.

Sincerely,

Chris R. Meyer, P.E.
Senior Plant Engineer
Manitowoc Ice, Inc.

Cc: Mr. Dan Brandl
Mr. Tim Reis

2110 South 26th Street
P.O. Box 1720
Manitowoc, WI 54221-1720
Tel: 920-682-0161
Fax: 920-683-7522
Sales Fax: 920-683-7589
Service/Parts Fax: 920-683-7585
Purchasing Fax: 920-683-7879
www.manitowocice.com

A Manitowoc® Company

RMT®
Integrated Environmental Solutions

744 Heartland Trail 53717-1934
P.O. Box 8923 53708-8923
Madison, WI
Telephone: 608-831-4444
Fax: 608-831-3334
www.rmtinc.com

May 5, 2006

Mr. Chris R. Meyer, P.E.
Plant Engineer
Manitowoc Ice Division
2110 South 26th Street
Manitowoc, WI 54221-1720

Subject: Proposal for RCRA Tank Integrity Assessment at Manitowoc Ice
Manitowoc, Wisconsin

Dear Chris:

This letter presents RMT, Inc.'s (RMT's), proposal to assist the Manitowoc Ice Division with the completion of a RCRA tank integrity assessment of a 4,000-gallon waste nitric acid accumulation tank located at the Manitowoc Ice Division, Manitowoc, Wisconsin, facility. This proposal has been developed in response to our recent telephone conversation related to the Notice of Violation letter received by the Manitowoc Ice Division from the USEPA dated April 14, 2006.

Jim Wink of RMT has evaluated the situation and has identified competent staff and a scope of services to address and resolve the agency's tank integrity issues.

To accept this proposal, please sign and return one copy of the enclosed Work Authorization.

We are pleased to offer this assistance to the Manitowoc Ice Division. If you should need to contact me, I can be reached, at (608) 662-5313, or via electronic mail, at Dan.Hall@rmtinc.com. I will call you the week of May 8, 2006, to discuss this project further after you have had an opportunity to review our proposal.

Sincerely,

RMT, Inc.

Dan Hall

Dan Hall
Senior Project Manager

Attachments: Proposal
Work Authorization
Schedule of Charges

cc: Brian Sedgwick, RMT, Inc.

Proposal for RCRA Tank Assessment at the Manitowoc Ice Division, Manitowoc, Wisconsin, Facility

Background

On April 14, 2006, the Manitowoc Ice Division received a Notice of Violation letter from the United States Environmental Protection Agency (USEPA) related to a January 2006 RCRA inspection completed at the facility. The letter listed several violations, including the need to complete a RCRA tank assessment of the facility's 4,000-gallon waste nitric accumulation tank. In addition, the letter identified the need for the facility to initiate a daily inspection program for the accumulation tank and associated conveyance system components in accordance with RCRA regulations.

Project Objectives

RMT's proposal has been developed to accomplish the following Manitowoc Ice Division objectives:

- To complete and document a visual integrity assessment of the facility's RCRA hazardous waste (waste nitric acid) accumulation tank.
- To prepare an inspection form to complete daily inspections of the facility's RCRA hazardous waste (waste nitric acid) aboveground accumulation tank.

Project Team

We offer Dan Hall as the project manager for the proposed Scope of Services. Brian Sedgwick of the Madison RMT office will complete the Professional Engineer evaluation of the tank system. Jim Wink of RMT's Madison office will provide quality control for the project.

Scope of Services

RMT will perform the following services:

Task 1. RCRA Tank Assessment

An RMT Wisconsin Professional Engineer, licensed in the State of Wisconsin, will visit the Manitowoc Ice Division facility to conduct a visual integrity assessment of the facility's 4,000-gallon aboveground tank used to accumulate waste nitric acid, a RCRA hazardous waste. The assessment is estimated to take approximately 4 hours on-site. The assessment will be completed in accordance with the requirements of Wisconsin Administrative Code NR 645.07. In addition, RMT will assess the integrity of the piping, pump and secondary containment associated with the tank. The secondary containment assessment will be completed to meet the requirements of NR 645.09.

Prior to the site visit, RMT will obtain from the Manitowoc Ice Division the following:

- Documentation on the date of installation of the tank and the secondary containment system.
- All available manufacturer's information on the conveyance and associated pump system.
- The material safety data sheet (MSDS) for the nitric acid used in the plating system.
- A copy of the waste disposal profile for the waste nitric acid.

If logistically possible, RMT will attempt to observe the tank system when it is full and when it is empty. This assessment could be completed through coordination with the facility and the facility's waste hauler. This observation would be completed during the same 1-day site visit.

Currently, an industry-accepted integrity assessment specification, such as an API standard, does not exist for plastic tank systems. The RMT Professional Engineer will use general, accepted engineering practices and professional judgement in conducting their assessment. A written letter report documenting the assessment and findings will be prepared and sealed by the project Professional Engineer.

Task 2. Prepare Daily Inspection Form

RMT will prepare an inspection form that will meet the intent of the daily inspection required under RCRA, particularly NR 645.11. The form will include a brief work instruction for completing the inspection. The work instruction will include pictures of the system highlighting specific equipment to be assessed. The work instruction and form will identify the appropriate corrective action process for issues identified during the inspection.

Deliverables

RMT will provide the Manitowoc Ice Division with the following deliverables:

- A letter report presenting the integrity assessment and findings of the facility's RCRA 4,000-gallon tank, sealed by a Wisconsin Professional Engineer licensed in the State of Wisconsin.
- A daily RCRA hazardous waste accumulation tank inspection form and associated work instruction.

Fee Proposal

RMT proposes to perform the Scope of Services on a time-and-expenses basis. The estimated total fees will be approximately $4,800. Should the Manitowoc Ice Division request RMT to make changes in the services or to perform additional services, RMT will prepare a Change Order for the Manitowoc Ice Division's acceptance.

Basis for Estimated Cost

RMT's estimated cost is based on the following:

- The Manitowoc Ice Division will submit a copy of the tank assessment to the appropriate Wisconsin Department of Natural Resources and the USEPA, including a cover letter addressing the agency notice of violation letter.

Terms of Contract

RMT proposes to perform the services under the terms of the Master Agreement between the Manitowoc Company and RMT dated September 1, 2005. To accept this proposal, please sign and return one copy of the enclosed Work Authorization.

Schedule

RMT can begin work on the project within 3 weeks after receiving your notice to proceed.

Health and Safety Considerations

RMT subscribes to Occupational Safety and Health Administration (OSHA)– and United States Environmental Protection Agency (USEPA)–mandated health and safety standards. Because of the wide range of potential exposures for our employees, RMT must make conservative judgments as to potential health risks. The services outlined in this proposal are offered on the basis of providing Level D health and safety protection (coveralls, safety shoes, hard hats, and eye protection only). If additional protection is required for RMT employees to perform these services, then RMT will advise the Manitowoc Ice Division of the needed protection and any associated increase in compensation before proceeding with the work.

WORK AUTHORIZATION

RMT, Inc.
744 Heartland Trail (53717-1934)
PO Box 8923 (53708-8923)
Madison, WI
Tel. (608) 831-4444 • Fax (608) 831-3334

Date: May 5, 2006 **Client Number:**

To: Mr. Chris R. Meyer, P.E.
Manitowoc Ice Division ("Client")
2110 South 26th Street
Manitowoc, WI 54221-1720

Project Name: RCRA Tank Integrity Assessment

Facility Location: Manitowoc, Wisconsin

RMT Proposal Number: 90-99706.90 **RMT Project Number:**

The Agreement consists of the following documents:

(a) This Work Authorization Form
(b) Proposal for RCRA Tank Integrity Assessment at Manitowoc Ice, Manitowoc, Wisconsin dated May 5, 2006 ("Proposal") (attached)
(c) Terms and Conditions:
- Master Environmental Services Agreement between RMT, Inc. (RMT), and Client dated September 1, 2005.

(d) Change orders that may be authorized at various times throughout the Project
(e) Schedule of Charges (attached)

Schedule:

Approximate Start Date: May 15, 2006
Approximate Completion Date: June 15, 2006

Basis for Payment:

Time-and-Expenses

Summary of Scope of Services

DESCRIPTION	ESTIMATED COST
RCRA Tank Integrity Assessment	$4,800
Total	**$4,800**

Project Managers:

RMT
Daniel W. Hall

Manitowoc Ice Company
Chris Meyer

This Proposal is valid until June 1, 2006.

WORK AUTHORIZATION

Proposal No: 90-99706.90

Acceptance:

Authorization for RMT to commence work included in the Proposal constitutes acceptance of this Agreement. Acceptance can be made by signing in the place provided below, by accepting or using work product within the Scope of Services, or by written or oral authorization to RMT to commence work prior to signing. Acceptance is limited to the terms stated herein, and any additional or different terms are rejected unless expressly agreed to in writing by RMT.

APPROVED AND ACCEPTED AS OF THE DATE SHOWN BELOW:

RMT, Inc.	Manitowoc Ice Company
Signature	Signature
James Wink	CHRIS R MEYER
Printed Name	Printed Name
Environmental Scientist	SR. PLANT ENGINEER
Title	Title
May 5, 2006	MAY 9, 2006
Date	Date

SEE INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN

Chapter 291, Wis. Stats.
Form 4400-66P Rev. 1-99

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Waste Management
Box 8094
Madison, WI 53708

FOR DNR USE ONLY

F ...igned for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WI 0980570014
Manifest Document No.: 0 5 0 4 5
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: MANITOWOC, ICE, 2110 SOUTH 25TH STREET, MANITOWOC, WI 54220-0000
Site Location If Different: SAME
4. Generator's Phone (920) 683-7872

A. State Manifest Document Number: WIK 391633
B. State Generator's ID:

5. Transporter 1 Company Name: ONYX ENVIRONMENTAL SVCS L.L.C.
6. US EPA ID Number: NJD080831369
C. State Transporter's ID: 16139
D. Transporter's Phone: (973) 347-7111

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: ONYX ENVIRONMENTAL SVCS,L.L.C, W124 N9451 BOUNDARY RD, MENOMONEE FALLS, WI 53051
10. US EPA ID Number: WID003957148
G. State Facility's ID: 03135
H. Facility's Phone: (262) 255-6855

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, HAZARDOUS WASTE, SOLID, n.o.s., 9, NA3077, III, (F006)	001	CM	00020	Y	F006
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: A) S/T 361576 - (PDC21787)
K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information: EMERGENCY NUMBER-INFOTRAC: 1-800-535-5053 A) F006

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: Kim Kettner Gen. Sup.
Signature: Kim M. Kettner
Date: Month 03 Day 15 Year 2005

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title: Thomas Theis
Signature: Thomas Theis
Date: Month 03 Day 05 Year 2005

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as ...oted in Item 19.
...ed/Typed Name & Position Title:
Signature:
Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance and Spill Reporting
Telephone Number: (800) 943-0003

COPY 2- GENERATOR RETAIN

Waste, Pesticides and Toxics Division

Type of Document:
- ☐ Termination of Order
- ☒ Notice of Violation and Inspection Report/Checklist
- ☐ No Violation Letter and Inspection Report/Checklist
- ☐ Letter of Acknowledgment
- ☐ Information Request
- ☐ Pre-Filing and Opportunity to Confer
- ☐ State Notification of Enforcement Action

Facility Name: MANITOWOC ICE, INC

Facility Location: 2110 S. 26th Street

City: MANITOWOC **State:** WI

U.S. EPA ID# WID980570014

Assigned Staff BRENDA OSWALD **Phone:** 3-4796

Name	Signature	Date
Author		4-12-06
Regional Counsel		4-12-06
Section Chief		4-12-06
Branch Chief		
Division Director		

Directions/Request for Clerical Support:

After the Section Chief signs this sheet and original letter:

1. Date stamp the cover letter;
2. Make four copies of the contents of this folder:
   - One copy for the assigned staff;
   - One copy for the section file;
   - One copy for the branch file; and
   - One copy for the official file copy.
3. Make any additional copies for cc's or bcc's.
4. Mail the original certified mail and distribute office copies and cc's and bcc's. Once the certified mail receipt is returned:
5. File the certified mail receipt (green card), with this sign-off sheet and the official file copy, and take to 7th floor RCRA file room.
6. E-mail staff the date that the letter was received by facility.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DE-9J

APR 14 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Chris R. Meyer, P.E.
Plant Engineer
Manitowoc Ice Division
2110 South 26th Street
Manitowoc, Wisconsin 54221-1720

Re: Notice of Violation
RCRA Compliance Evaluation Inspection
Manitowoc Ice
EPA I.D. No.: WID980570014

Dear Mr. Meyer:

On January 18, 2006, representatives of the United States Environmental Protection Agency (U.S. EPA) and the Wisconsin Department of Natural Resources (WDNR) inspected the Manitowoc Ice facility ("MI" or "Facility") located in Manitowoc, Wisconsin. The purpose of the inspection was to evaluate MI's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment, and storage of hazardous waste. Please find enclosed copies of the inspection report and checklists for your reference.

Based on information provided by MI personnel, a review of records, and physical observations by the inspectors, the U.S. EPA finds that MI is engaged in the management of hazardous waste without a hazardous waste storage license and is in violation of the requirements of the Wisconsin Administrative Code (WAC) and the United States Code of Federal Regulations (CFR). To be eligible for the exemption from having a hazardous waste storage license, a large quantity generator must be in compliance with the conditions of WAC ss. NR 615.05(4) and 615.05(6)(a) [40 CFR §§ 262.34(a) and (c)]. Specifically, we find that MI is in noncompliance with the following conditions for a storage license exemption, and is in violation of the following requirements:

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1. In order to avoid the need for a hazardous waste storage license, a large quantity generator who stores hazardous waste in a tank system must inspect, where present, at least once each operating day, overfill/spill control equipment, the aboveground portions of the tank system, data from leak-detection and monitoring equipment, and the construction materials (e.g. containment dikes) and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures. See, WAC ss. NR 615.05(6)(a) and (b), 615.05(4)(a)3.b., 645.11(1) and (2)(a)-(d) [40 CFR §§ 262.34(a)(1)(ii), 265.195(a)(1)-(4)]. The generator must document these inspections in the operating record of the facility. See, WAC ss. NR 615.05(4)(a)3.c., 645.11(4) [40 CFR § 265.195(c)]. These are also requirements of owners and operator of hazardous waste storage facilities under WAC ss. NR 645.11(1), (2)(a)-(d), and (4); 680.22(22) [40 CFR § 265.195(a)(1)-(4)].

   At the time of the inspection, MI was performing weekly visual inspections of the nitric acid tank as a part of the hazardous waste 90-day storage area weekly inspection schedule. According to Mr. Meyer, the Plant Engineer, MI does not perform daily inspections of overfill controls. MI, therefore, failed to comply with the above-mentioned conditions for a hazardous waste storage license exemption and violated the above-mentioned daily tank inspection and documentation requirements.

2. In order to avoid the need for a hazardous waste storage license, a large quantity generator who stores hazardous waste in an existing tank system must have secondary containment meeting the applicable requirements of WAC s. NR 645 [40 CFR § 265.193]. See, ss. NR 615.05(6)(a) and (b), 615.05(4)(a)(3), 645.09(3)(d) [40 CFR §§ 262.34(a)(1)(ii), 265.193(a)(3)]. For each existing tank system that does not have secondary containment meeting these requirements, the generator must obtain and keep on file at the facility a written integrity assessment reviewed and certified by an independent, qualified, registered professional engineer in accordance with WAC s. NR 680.05(2)(d) [40 CFR § 270.11(d)]. See, s. NR 645.07(1) [40 CFR § 265.191(a)]. This assessment must be performed according to WAC s. NR 645.07(2) [40 CFR § 265.191(b)]. Owners and operators of hazardous waste storage facilities must also comply with the above-mentioned requirements under WAC ss. NR 645.07(1), 645.09, and 680.22(22) [40 CFR §§ 265.191(a) and (b); 265.193].

   At the time of the inspection, MI did not have a leak detection system in place for their existing 5,420-gallon nitric acid hazardous waste tank. In so doing, MI failed to have an adequate secondary containment system and was, therefore, responsible for obtaining a certified written integrity assessment including the required elements of WAC s. NR 645.07(2) [40 CFR § 265.191(b)]. MI did not obtain a certified written integrity assessment for the nitric acid hazardous waste tank. MI, therefore, failed to comply with the above-mentioned condition for a storage license exemption and violated the above-mentioned tank assessment requirements.

3. WAC s. NR 615.08(6) requires that after a transporter signs and dates a hazardous waste manifest, a large quantity generator must, within five business days, send a copy to the WDNR.

   At the time of the inspection, the following generator copy of the manifest had not been received by the WDNR: WIK391633 dated 3/15/2005. MI, therefore, violated the above-mentioned manifest requirement.

4. A large quantity generator who accumulates hazardous waste on-site for 90 days or less, and who does not meet the conditions for a storage license exemption of WAC ss. NR 615.05(4) and (6)(a), is an operator of a hazardous waste storage facility, and is required to apply for and obtain a hazardous waste storage license. See, WAC ss. NR 615.05(6)(a) and (b); 680.30, 680.31(2), and 680.32(2) [40 CFR §§ 262.34 (a),(b),(c); 270.1(c); 270.10(a),(d)]. On failing to comply with the conditions for a license exemption referenced in items 1 and 2 above, MI's failure to apply for and to obtain a hazardous waste storage license violated the licensing requirements of WAC ss. NR 680.30, 680.31(2), and 680.32(2) [40 CFR §§ 270.1(c); 270.10(a),(d)].

At this time, U.S. EPA is not requiring MI to apply for a storage license, so long as MI immediately establishes compliance with the conditions for a license exemption as outlined above. Under Section 3008(a) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6928(a), U.S. EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office documenting the actions, if any, which have been taken since the inspection to establish compliance with the above conditions and requirements.

You should submit your response no later than thirty (30) days after receipt of this letter to Brenda Oswald, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, DE-9J, Chicago, Illinois 60604. Should you have any questions regarding this letter, please contact Brenda Oswald of my staff at (312) 353-4796.

Sincerely,

Paul Little

Paul Little, Chief
Compliance Section # 2
Enforcement and Compliance Assurance Branch
Waste, Pesticides, and Toxics Division

Enclosures

cc: Mr. Barti Oumarou, WDNR, Northeast Region

bcc: Monesh Chabria, ORC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

Compliance Evaluation Inspection Report

Report Date:	January 25, 2006
Date of Inspection:	January 18, 2006
Facility Name:	Manitowoc Ice, Incorporated
Facility Address:	2110 S. 26th Street Manitowoc, Wisconsin 54221-1720
EPA ID Number:	WID980570014
Generator Status:	Large Quantity Generator
Facility Contact:	Christopher R. Meyer, P.E. – Senior Plant Manager
U.S. EPA Inspector:	Brenda Oswald - Environmental Engineer Waste, Pesticides and Toxics Division Enforcement and Compliance Assurance Branch Compliance Section 2
Prepared By:	Brenda Oswald – Environmental Engineer
Date Completed:	2/2/2006 Month / Day / Year
Received By:	Paul Little – Chief, Compliance Section 2
Date Received:	2-2-06 Month / Day / Year

Introduction

An unannounced Compliance Evaluation Inspection (CEI) of Manitowoc Ice, Incorporated, ("MI" or "Facility") located at 2110 S. 26th Street in Manitowoc, Wisconsin, took place on January 18, 2006, between 10:00 a.m. and 2:30 p.m. The inspection was conducted as a large quantity generator inspection. The following people were present for this inspection:

Christopher Meyer, P.E. – Senior Plant Manager	MI
Barti Oumarou - Senior Waste Management Specialist	WDNR
Brenda Oswald – Environmental Engineer	U.S. EPA

Facility Information

The following information about MI is based on the personal observations of the U.S. EPA and WDNR inspectors, and on representations made by the Facility personnel identified above during the inspection.

The building housing MI has been utilized since 1979, though MI has been in the foodservice market since the 1960s. The Facility is approximately 360,000 ft^2. MI is part of the Manitowoc Company, Inc., which is located at 2400 South 44th Street in Manitowoc. The company operates in over 20 countries and is comprised of three divisions: foodservice, cranes, and marine. MI employs close to 450 people who work in 3 shifts, 7 days a week.

MI is largely an assembly plant. Most of the equipment that composes a Manitowoc Ice machine is manufactured elsewhere and shipped to this Facility for final machining and assembly. The evaporator trays for the units, however, are plated at MI before being inserted into the product. MI also has a sheet metal department where they sheer, punch, and form their own parts. Plastic bins are also manufactured in-house from resin powder.

The following wastes are generated at MI: waste water treatment sludge (F006), nitric acid (D002), combination filters (F006, D002, D010), cyanide filters (F007), solvents (F005), solder flux (D008, D011), aerosol cans (D001), universal waste batteries and bulbs, and electronic equipment.

The waste water treatment sludge is generated from the plating line along with the bulk combination filters and the cyanide filters. Nitric acid waste is generated from plating tank cleanouts. Spent listed solvents are generated from a parts washer in the maintenance area. Solder flux is generated from cleanouts of the solder rinse tub where evaporator trays are assembled before being plated. Aerosol cans of stripper/cleaner are generated by the foaming lines and the maintenance area and are sent out without first being crushed to release the propellants. Universal waste and computer equipment are generated throughout the Facility.

Walk-Through of Facility

The tour began at the Maintenance Shop, which is also known as the Machine Shop. A satellite post has been set up near this area. Four 55-gallon drums were in service at the time of the inspection. The first drum was kept in a flammable protection cabinet and contained spent solvent (Appendix A: Picture 1). The drum was closed with a locked funnel and labeled as "Hazardous Waste." A second drum contained empty or discarded aerosol cans (Appendix A: Picture 2). This drum was also closed and labeled as "Hazardous Waste." A third drum was used to collect broken fluorescent, incandescent, and high-pressure sodium bulbs (Appendix A: Picture 3). These bulbs have broken on accident and are labeled and managed as "Hazardous Waste." This drum was also closed. A fourth drum contained used oil and was marked as such (Appendix A: Picture 4). Also in this area, MI has plastic drums for lead-acid batteries, circuit boards and dry-cell batteries. These drums were empty at the time of the inspection.

No waste is generated in the Finished Goods section. MI uses non-hazardous packing foam, and the containers from this foam are sent back to the manufacturer in a reuse agreement.

By the Bin Assembly Line (BAL), a 55-gallon drum is used to collect spent propane tanks. The drum is labeled as hazardous waste, but the propane containers are tested to ensure that they are empty before they are shipped Ridgeview, a solid waste landfill. The Foaming Lines are also located by the BAL. The foam is made up of two separate components that are combined as they are injected with guns into cavities in the product casing. This foam is non-hazardous, but the cleaner for the gun tips is provided in aerosol cans. A satellite container for these aerosol cans is in this area. The 55-gallon drum was labeled as "Hazardous Waste" and was closed.

Behind the BAL, in Rotational Molding, bins are created from a fine polyethylene resin which is put into a mold then heated in an oven chamber. The mold is then rotated as water is sprayed on it to help it cool. Excess polyethylene is cut off of the mold and sent back to the resin supplier for reclamation.

By the Steel Processing Dock in the southwest side of the Facility, MI has a cardboard collection area and a garbage compactor. Outside of the Facility, behind this area, MI has hoppers of scrap metal from the machining lines. All scrap metal at the Facility is managed by B & B Metals.

Copper tubing is brought to the Facility on a coil to be straightened mechanically and then reshaped into a serpentine formation that is attached to the bottom of the evaporator trays for the ice machines. No hazardous waste is produced in this Tubing Cell. The sheet metal Press Room is across the aisle from the Tubing Cell. No hazardous waste is produced in this area. No used coolant or cutting oils are generated in either department.

The Evaporator Soldering, Plating and Wastewater Treatment Areas are where the bulk of the hazardous waste is generated at this Facility. Waste water treatment sludge, nitric acid, combination and cyanide filters, and solder flux are generated at different stages in the plating process. The basic pieces that make up the copper evaporator tray are a flat piece of metal, serpentine tubing, and a grid. Each piece is washed and dried. Solder flux is rolled onto the

bottom of the flat sheet and the tubing is attached. Solder flux is applied with a template to the top of the sheet and a copper grid is positioned on that pattern. The excess flux is washed off in a tub. The rinse water is shipped once or twice a year as D008/D011 hazardous waste. The tray is then sent through an oven to melt the solder and bind the components. The tray is then ready for plating.

The Plating Line plates nickel on the copper trays for longevity and sanitary purposes. The process is split between electrolytic and electroless nickel plating. The first two plating tanks electrolytically plate copper onto copper to cover the solder. The next two tanks electrolytically plate nickel onto the copper. The next eight tanks use electroless plating techniques to continue plating nickel onto the tray. Electroless plating is strictly a chemical plating process. A peroxide based microetching tank is also part of the process. Combination filters are generated from the nickel strike and the electroless nickel baths. Though none were on site at the time of the inspection, these filters are normally accumulated in a cubic yard box and are managed as F006, D002, and D010 waste (Appendix A: Picture 5). Cyanide filters are generated from the cyanide bath. These filters were also not being accumulated on site at the time of the inspection, but they are normally accumulated in a 55-gallon drum and managed as F007 waste (Appendix A: Pictures 6, 7).

Beneath the Plating Line, a set of three underground containment trenches is to be used as secondary containment in the event of a spill. The trenches are set up to segregate direct spills from the tanks above. One trench is positioned for the cleaners. A second trench would catch the cyanides, and a third trench is beneath the plating tanks. The containment area is lined and otherwise filled with sand. The trenches are linked via a pump to the Waste Water Treatment System (WWTS). There are no other drains in the area. The concrete floor is lined with a coating and is slightly sloped toward the trenches.

The WWTS is a flow-through system consisting of a pH adjustment tank, clarifier, sludge-thickening tank and filter press. The filter cake generated from the system is managed as F006 waste. The hoppers beneath the filter press were labeled as "Hazardous Waste." These hoppers are emptied into a roll-off box at the north end of the WWTS. This roll-off was labeled as "Hazardous Waste," covered with a tarp, and dated 12/12/2005 (Appendix A: Picture 8). The WWTS also handles batch treatment of cyanide wastewater as it is destructed through a bleaching process. The rinse water from the electroless nickel baths is sent to a separate tank where the excess water is vaporized. US Filter will pick up the concentrated nickel solution, remove the nickel and sell sludge to a smelter.

A 5,420 gallon waste nitric acid tank is located next to the concentrated nickel tank (Appendix A: Picture 9). The tank was most likely installed before March 1991. The tank is protected by a second tank surrounding it, though it is not a double-walled tank. Both the primary and secondary tanks are open to the atmosphere. The secondary tank would be able to contain a leak from the inner tank. The tanks are also surrounded by a diked area of coated concrete that could contain a spill should the secondary tank rupture (Appendix A: Picture 10). The nickel rinse-water and concentrated nickel solution tanks are also within this sizeable containment area. Should the containment dike fail, the plating trenches are directly in front of the tank, and no

other drains are open on the floor. The tank system is not fitted with a leak detection system. Mr. Meyer stated that visual inspections of the tanks and surrounding containment are performed weekly, not daily. An integrity assessment has not been performed for the tank system, nor does MI schedule annual leak tests. Waste is shipped quarterly (no more than 90 days) from this tank. Within the past year, the greatest amount shipped was 3700 gallons, which is more than thirty percent below the capacity of the tank. The nitric acid tank was labeled as "Hazardous Waste" and was dated 11/18/2005 (Appendix A: Picture 11).

A truck bay is located directly behind the nitric acid and electroless nickel wash water tanks and is separated from them by a wall. The tanks are pumped directly to tanker truck via a pump through the wall. The truck bay has a drainage trench that is controlled by a manifold pump which can direct the spill to any tank in the Plating and WWTS area. This bay is also used for the delivery of any chemicals that come to the Facility.

The 90-day storage area is located on the northwest corner of the property. It is a separate building which houses product, used oil, non-hazardous waste, and hazardous waste. Waste had been shipped off earlier in the week and no waste was accumulating in this area at the time of the inspection. Drums and totes are kept on pallets which double as secondary containment. Nitric acid product is stored in metal drums on top of tote-sized containment pallets. The area is supplied with emergency equipment such as an eyewash, 2 fire extinguishers, and spill kits. This room is not equipped with a pull down alarm system, but employees are provided with two-way radios for immediate communication abilities. The hazardous waste that is eventually stored in this area includes the cyanide and combo filters, solder flux rinsate, and solvent waste. Generally, the combo and cyanide filters are shipped 3 or 4 times per year. Solder flux rinsate is shipped only 1 or 2 times per year. The room itself is lined with concrete coating and graded to disallow the migration of waste outside of the building.

End of Walk-Through

Records and Emergency Preparedness Review

Preparedness and Prevention: Emergency arrangements with the following authorities have been made: Manitowoc Fire Department, Manitowoc Police Department, Holy Family Medical Center, Onyx Special Services and the WDNR. The required emergency equipment is available throughout the Facility. MI uses the ADT security system, managing employees carry two-way radios, fire extinguishers and spill containment kits are in necessary locations, and water is at an adequate pressure. Aisle space is adequate.

Contingency Plan: The plan was last amended in April, 2005 and describes the actions Facility personnel must take in response to emergency situations and releases of hazardous waste to the environment. The plan identifies the following people as Emergency Coordinators for MI: Chris Meyer (Primary – 1st Shift), Doug Cayemberg (1st Shift), Kim Kettner (1st Shift), Tom Clarksen (Primary – 2nd Shift), Kathy Ward (2nd Shift), Tom Jonet (3rd Shift). The home phone numbers and addresses are included in office copy of the plan. The

emergency coordinators are given the authority to commit the resources necessary to carry out the contingency plan. A list of emergency equipment shows locations, inspections, capabilities, and descriptions of the equipment. Arrangements with local emergency responders are described in the plan. MI has sent the plan to the responders as well as the WDNR. Evacuation routes, plans and signals are also included in the plan.

Manifests: All manifests are kept on-site for at least three years. The following generator manifest has not been received by the WDNR: WIK391633 – 3/15/2005. The manifests were all complete and had applicable LDR statements attached. The following information about the hazardous waste disposal was taken from the manifests:

Hazardous Waste	Transporter	Transporter EPA ID	TSDF	TSDF EPA ID
Electroplating Treatment Sludge	Onyx Environmental Services, LLC	NJD080631369	Onyx Environmental Services, LLC	WID003967148
Ignitable Waste	Quality Carriers	FLR000057414	Pollution Control Industries, Inc.	IND000646943
Combo Filters	Heritage Transport, LLC	IND058484114	Von Roll of America, Inc	OHD980613541
Cyanide Filters	Heritage Transport, LLC	IND058484114	Von Roll of America, Inc.	OHD980613541
Nitric Acid	Pioneer Tank Lines, Inc.	MND044176113	U.S. Filter Recovery Services, Inc.	MND981098478
Solvent	Quality Carriers/ Transwood, Inc.	FLR000057414 NE0000080580	WRR Environmental Services Co. Inc.	WID990829475
Solder Flux	Heritage Transport	IND058484114	Von Roll of America, Inc.	OHD980613541

Training: Training is provided by Cardinal Environmental. The last training was given on 12/06/2004 to the following: supervisors, manufacturing engineers, maintenance employees, forklift drivers, emergency response teams, lab personnel, platers, and gridline operators. The people who conduct weekly inspections and sign manifests are all plant supervisors. Everyone gets a separate training on the contingency plan. New employees go through an orientation which familiarizes them with emergency procedures.

Inspections: Inspections are performed by either Chris Meyer or Kim Kettner weekly for all 90-day areas including the nitric acid tank, the F006 roll off box and the storage building. Spill kits and satellite accumulation areas are also checked. All weeks for at least the last three years were filed and complete. The inspection log includes date, time, name, notes, and corrective action. Daily inspections are not performed for the nitric acid tank.

Waste Profiles: All waste profiles were up to date and kept at the Facility. The analysis dates are listed below.

Name of Waste	Hazardous Waste Code	Date of Analysis	Name of Lab
WWTS Sludge	F006	January, 2001	Cardinal Environmental
Nitric Acid	D002	August 23, 2001	Cardinal Environmental
Cyanide Filters	F007	May, 2003	National Env. Testing
Combined Filters	F006, D002, D010	June, 1998	National Env. Testing
Solder Flux Rinsate	D008, D011	April 6, 1999	Superior (Now Onyx)
Solvent	F005	September, 2001	Hydrite

Waste Minimization Plan: The F006 sludge is currently land-disposed. MI is, and has been, looking at recycling possibilities. The nickel content in the sludge is low, and the price of nickel, though on the rise, has not yet made reclamation a possibility. Several methods have been used in an attempt to eliminate the nitric acid waste. MI has tried to neutralize the acid on-site, but did not have great success in raising the pH above 2.5. MI has also considered using the acid as part of the pH adjustment system in the WWTS, but that also did not come to fruition. MI has also studied the possibility of a dialysis process in the electroless nickel baths which would entail running these baths through a physical filter to remove more impurities thereby allowing the baths to be in use for longer periods of time and reducing the need for nitric acid to clean scale out of the baths. Currently, however, US Filters handles the waste most appropriately, and so MI continues to ship it to them. MI recycles cardboard and electronic equipment.

Universal Waste: Though no universal waste was on-site at the time of the inspection, it is normally stored on site in appropriate containers and is labeled with purple universal waste stickers. Courtney Battery handles the battery change outs for the fork-lifts. Midwest Lamp Recycling manages electronics, lamps, batteries and mercury. Midwest last picked up the universal waste on 12/9/2005.

Attachments

1. Appendix A – Photo log

APPENDIX A

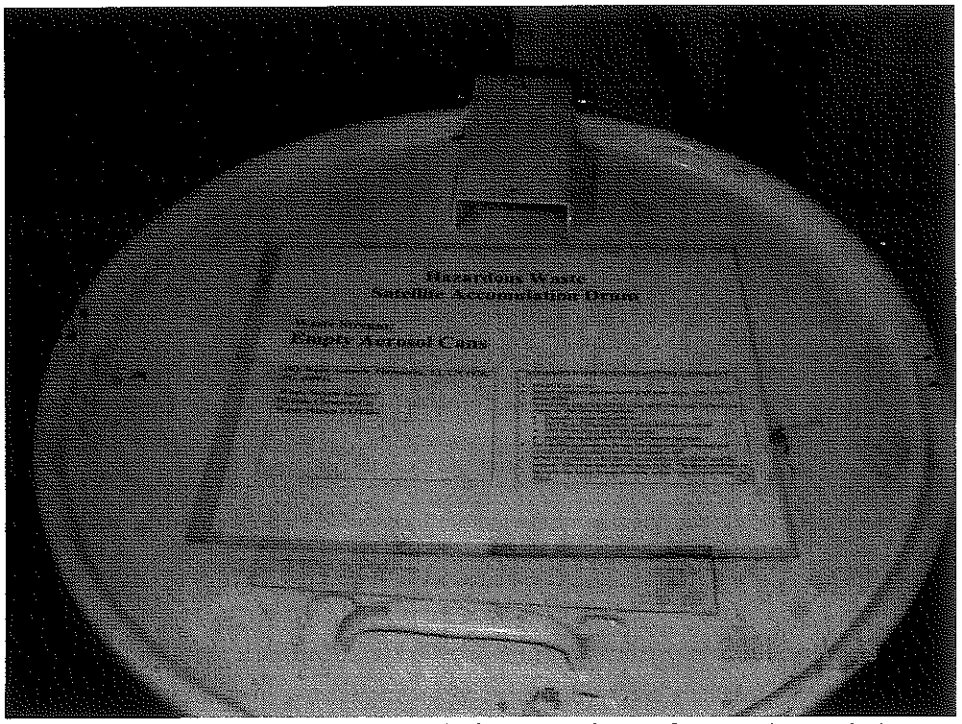
PHOTO LOG

Inspection Date:
January 18, 2006

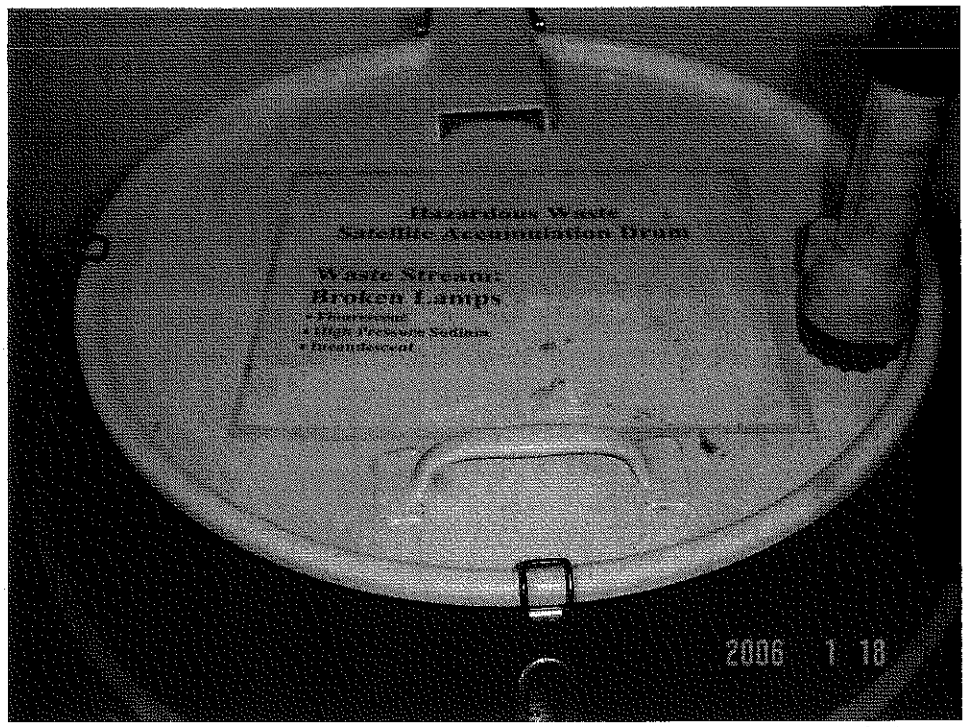
Facility Name:
Manitowoc Ice, Inc.

Inspector and Photographer:
Brenda Oswald
Waste, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
Compliance Section 2

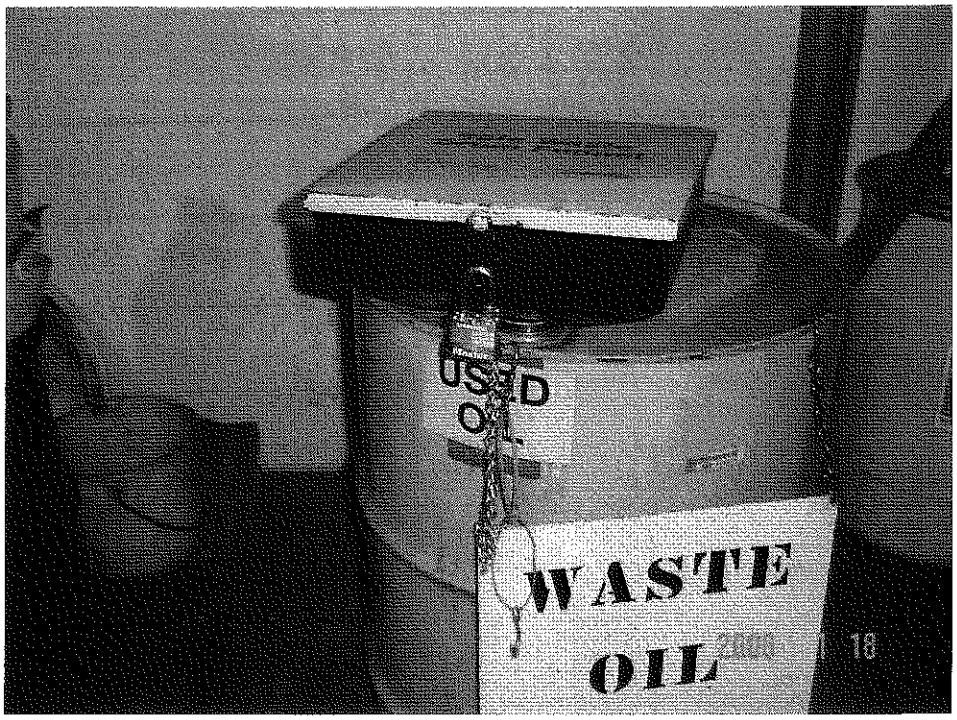
Picture 1 – A 55-gallon satellite accumulation container of spent F005 solvent is kept near the Maintenance Area in a flammable-safe cabinet.



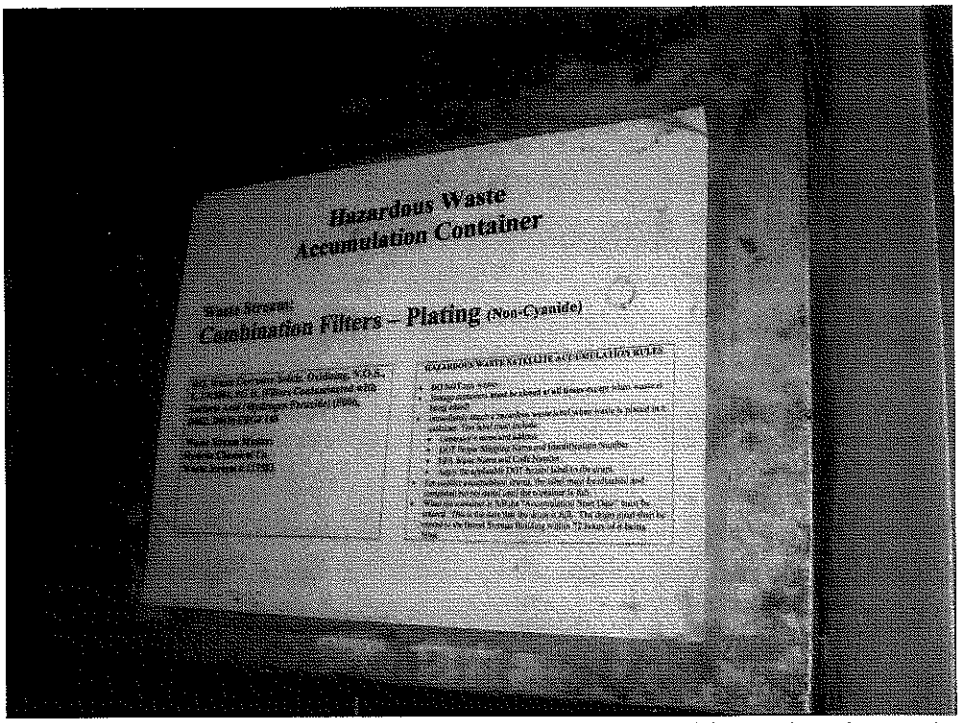
Picture 2 – A 55-gallon satellite accumulation container of aerosol cans is kept near the Maintenance Area.



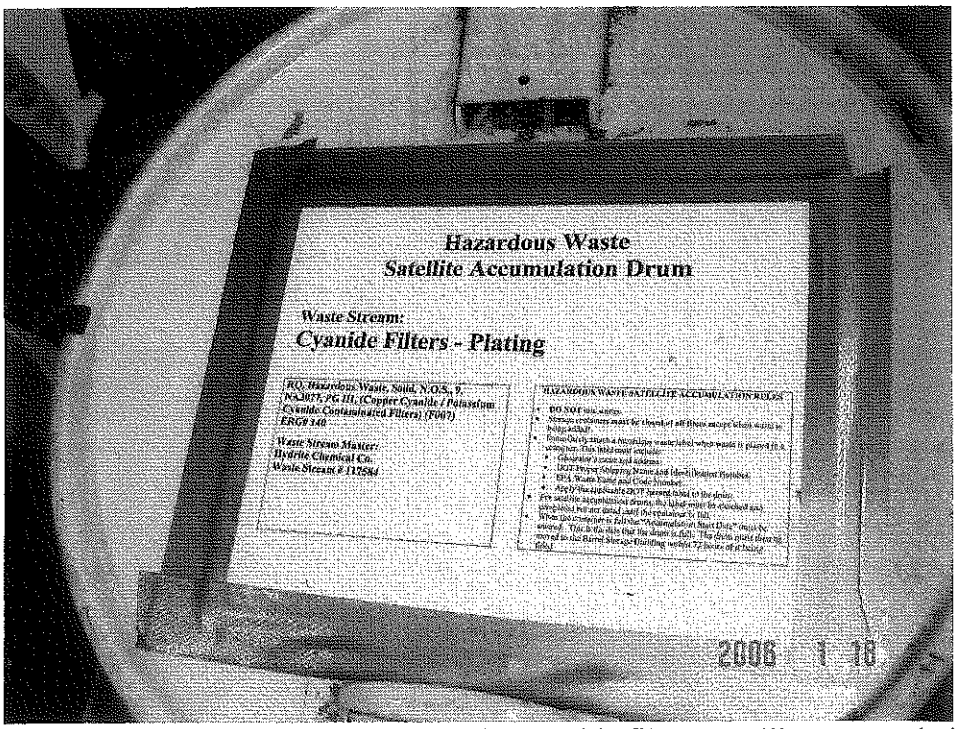
Picture 3 – A 55-gallon satellite accumulation container of broken lamps is kept near the Maintenance Area.



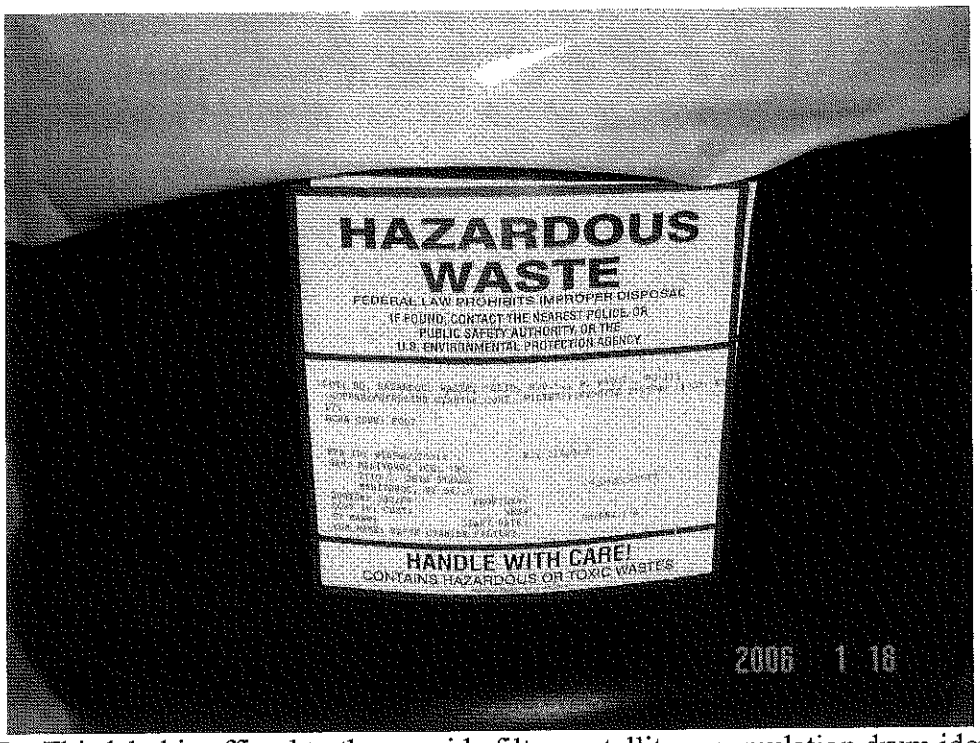
Picture 4 – This used oil drum is kept in the general satellite accumulation area near the Maintenance Area. The drum itself carries the proper label of "Used Oil."



Picture 5 – This label is affixed to the reusable cover of the cubic yard sacks used to contain spent combination filters in a satellite accumulation area near the Plating Line. No combination filters were accumulating at the time of the inspection.



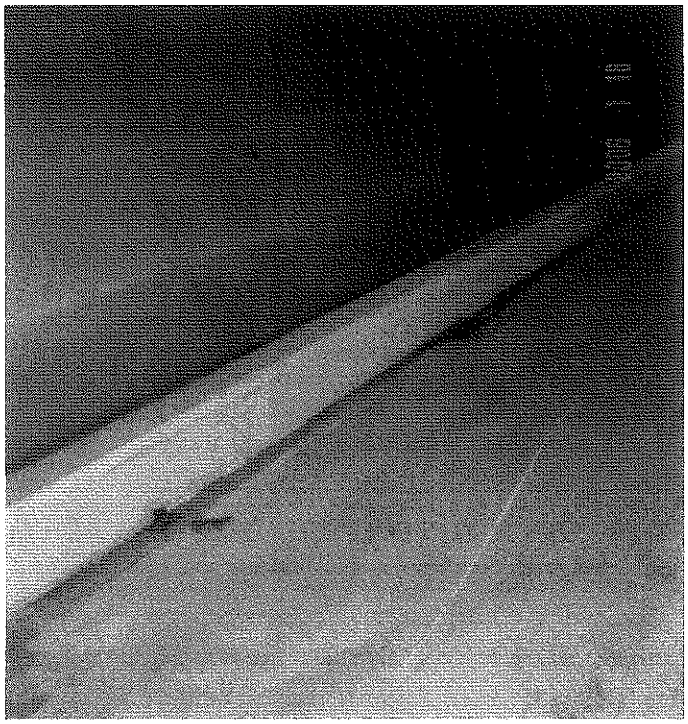
Picture 6 – This label is affixed to the top of the cyanide filters satellite accumulation drum which is located near the Plating Line.



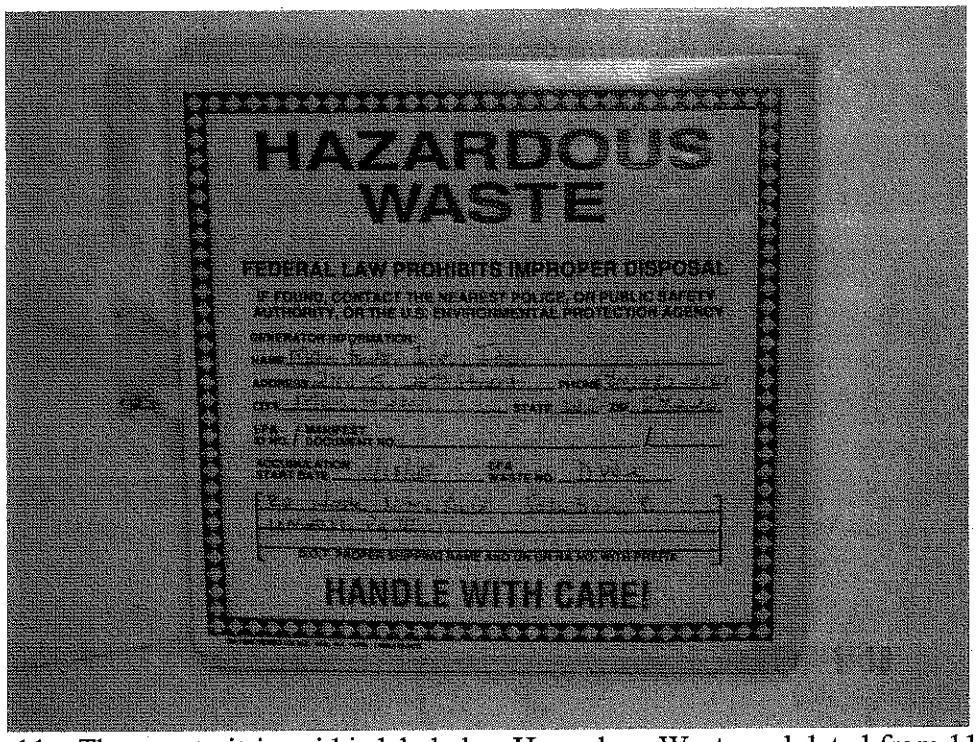
Picture 7 – This label is affixed to the cyanide filters satellite accumulation drum identified in Picture 6.

Picture 8 – The roll-off box is a 90-day accumulation container for F006 filter cake.

Picture 9 – These labels are affixed to the secondary tank surrounding the primary tank of spent nitric acid.



Picture 10 – The tanks for the electroless nickel waste water and the spent nitric acid are situated inside of a diked, concrete area.



Picture 11 – The spent nitric acid is labeled as Hazardous Waste and dated from 11/18/05.

State of Wisconsin
Department of Natural Resources
Hazardous Waste Management Program

Large Quantity Generator Inspection Report

tion A: Inspection Information

Inspection Date(s):	DNR Region:	~~DNR~~ Inspector(s):
JANUARY 18, 2006	NORTHEAST	BRENDA OSWALD, USEPA BARTI OUMAROU, WDNR

Section B: Generator Information

Generator Name	EPA ID Number	Facility ID (FID) Number
MANITOWOC ICE, INC	WID 980 570 014	436017560

Street Address	City	ZIP Code	County
2110 S. 26th Street	MANITOWOC	54221-1720	MANITOWOC

Generator Contact Name	Title	Telephone Number (include area code)
CHRIS R. MEYER, P.E	SENIOR PLANT MANAGER	(920) 683-7517

E-Mail Address: cmeyer@manitowocice.com

Legal Owner Name	Telephone Number (include area code)
MANITOWOC COMPANY INC.	

Street Address	City	State	ZIP Code
2400 S. 44th Street	MANITOWOC	WI	54221

Personnel Present	Title
CHRIS R. MEYER, P.E.	SENIOR PLANT MANAGER

Generator's Main Product or Process: ASSEMBLY OF MANITOWOC ICE ® MACHINES. MOST PARTS ARE ORDERED READY FOR ASSEMBLY. EVAPORATOR TRAYS ARE PLATED IN-HOUSE. POLY BINS ARE ALSO FABRICATED IN-HOUSE.

Section C: Waste Information

Description of Waste Generated	Hazardous Waste Code	Generation Rate lbs/month	Receiving Facility	Analysis (Date)	Generator Knowledge (✓)
WASTE WATER TRTMT SLUDGE	F006	~18,700 lbs/mo	ONYX ENV. SERVICES	1/2001	☐
NITRIC ACID	D002	~10,000	US FILTERS RECOVERY	8/23/01	☐
COMBINATION FILTERS CYANIDE FILTERS	F006 F007	~160 ~66	VON ROLL AMERICA VON ROLL AMERICA	6/1998 5/2008	☐
SOLVENT SOLDER FLUX	F005 D008, D011	~30 ~66	WRR ENV. SERVICES HERITAGE ENVIRONMENTAL	9/2001 4/6/1999	☐

Note: All "NR" References are Wisconsin Administrative Code Chapters

NR 615.06(3)	1. Has a hazardous waste determination been made on each solid waste generated? Check the appropriate means of the determinations: ☐ Lab Analysis ☐ Generator knowledge (specify):	☒ Yes ☐ No
NR 605.12(1)	2. Were waste samples analyzed by certified, registered, or approved laboratories under NR 149? If YES, provide lab names and certification numbers.	☒ Yes ☐ No
NR 615.06(4)	3. Has a new waste analysis been made if the process generating the hazardous waste changed?	☐ Yes ☐ No ☒ N/A
NR 615.06(5)	4. Does the generator keep records of all waste determinations on-site for at least three years from the date the waste was last sent to a storage, treatment or disposal facility?	☒ Yes ☐ No
NR 615.07(2)	5. Has the generator submitted a notification form and obtained an EPA ID#? Note: A subsequent notification should be submitted when there is an ownership or name change.	☒ Yes ☐ No

ction D: Manifest Requirements and Off-Site Shipments

R 615.08(1)	1. Does the generator initiate a manifest with all off-site shipments of hazardous waste?	☒ Yes ☐ No
NR 615.08(8)	2. Is the manifest complete?	☒ Yes ☐ No

Aerosol Cans	D001	~40 lb/mo	Pollution Control, Inc	N/A	GENERATOR KNOWLEDGE ☑

NR 615.08(3)	3. Does the manifest specify an approved facility to receive the waste?	☒ Yes ☐ No
NR 615.08(6)	4. Does the generator send a copy of the manifest to the Department and the receiving state within 5 business days of shipment? (except one)	☒ Yes ☐ No
NR 615.11(10)	5. Does the generator send a copy of the consignment state's manifest signed by the receiving facility to the Department within 5 business days of receipt?	☒ Yes ☐ No
NR 615.08(7)	6. Are copies of all manifests for the past 3 years retained on-site and available for review?	☒ Yes ☐ No
NR 615.10(1) and (2)	7. Is the hazardous waste packaged, marked and labeled according to DOT requirements?	☒ Yes ☐ No
NR 615.10(3)	8. Does the generator offer the initial transporter appropriate placards?	☒ Yes ☐ No
Section E: Land Disposal Restrictions		
NR 675.07	1. Has the generator determined if each waste is prohibited from land disposal? ☒ Lab analysis ☒ Generator knowledge	☒ Yes ☐ No
NR 675.06	2. Does the generator comply with the prohibition against dilution of wastes?	☒ Yes ☐ No
NR 675.07(1)	3. Does the generator provide notification to the off site facility with each shipment?	☒ Yes ☐ No
NR 675.07 (1)	4. Check the appropriate type of LDR notification: ☐ Waste is subject to an EXEMPTION from a prohibition (i.e. case-by-case variances, NR 675.05(2) exemption, nationwide capacity variance) ☐ Waste MEETS treatment standards; certification that wastes may be land disposed without further treatment ☒ Waste EXCEEDS treatment standards; notice of appropriate treatment and applicable prohibitions	
NR 675.07 (1)(j)	5. Does the generator retain a copy of LDR notifications and certifications for 5 years?	☒ Yes ☐ No
NR 675.09 (1)	6. Have underlying hazardous constituents been identified for characteristic wastes?	☒ Yes ☐ No ☐ N/A
NR 675.09(2)	7. If the waste is both a listed and characteristic waste, are all of the treatment standards for the characteristic waste included in the treatment standards for the listed waste?	☒ Yes ☐ No ☐ N/A
NR 675.09(2)	8. If NO to No. 7, are the additional treatment standards for the characteristic waste identified?	☐ Yes ☐ No ☐ N/A
NR 675.20(4)	9. Are wastes with different treatment standards for a constituent of concern mixed? No, All wastes segregated So	☐ Yes ☒ No ☐ N/A
NR 675.20(4)	10. If YES to No. 9, is the most stringent treatment standard selected?	☐ Yes ☐ No ☒ N/A
Section F: Reporting		
NR 615.11(1)	1. Have annual reports covering generator activities during the previous calendar year been submitted to the Department by March 1 of the following year?	☒ Yes ☐ No
NR 615.11(2)	2. Are procedures for exception reporting followed?	☐ Yes ☐ No ☒ N/A
Section G: Preparedness and Prevention		
NR 630.21(2)	1. Is the generator equipped with ALL of the following, unless it can be shown that the equipment is not necessary for the types of wastes handled? ☒ A device to summon emergency assistance (e.g., telephone, 2 way radio) ☒ Internal communications and alarm systems ☒ Portable fire extinguishers ☒ Fire control equipment, including special extinguishing equipment ☒ Adequate spill control equipment ☒ Decontamination equipment (e.g., eyewash, shower)	☒ Yes ☐ No
NR 630.21(4)	2. Is all of the above emergency equipment tested and maintained to assure its proper operation in an emergency?	☒ Yes ☐ No
NR 630.21(3)	3. Is there immediate access to internal or external alarms in hazardous waste handling areas? 2-way radios	☒ Yes ☐ No

NR 630.21(6)	4. Has the generator made necessary arrangements with the following emergency organizations? ☒ Primary and support roles have been defined if multiple police and fire departments could respond to an emergency ☒ Familiarize police, fire and emergency response teams with the site layout, hazards of the waste handled, places where personnel work, entrances and roads in the site and possible evacuation routes ☒ Agreements with emergency response contractors and equipment suppliers to provide response ☒ Familiarize local hospitals with the properties of wastes handled and the potential resulting injuries or illnesses	☒ Yes ☐ No
NR 630.21(5)	5. Is adequate aisle space provided throughout the site to allow for the unobstructed movement of personnel and all emergency equipment?	☒ Yes ☐ No
Section H: Contingency Plan		
NR 630.22(1)(a)	1. Does the generator have a written contingency plan or an amended SPCC plan that will be implemented immediately in the event of a fire, explosion or hazardous waste discharge?	☒ Yes ☐ No
NR 630.22(1)(b)	2. Has the generator made copies of the contingency plan and all revisions available to ALL of the following? ☐ Department ☐ Police ☐ Fire ☐ Hospital ☐ Emergency response teams	☒ Yes ☐ No
NR 630.22(1)(c)	3. Does the contingency plan need to be amended due to any of the following? ☐ Contingency plan failed in an emergency ☐ Change in site design, construction, O&M, or other circumstances which affected emergency response ☐ Emergency coordinators changed ☐ Emergency equipment changed	☐ Yes ☒ No
NR 630.22(1)(d)	4. Does the plan identify an emergency coordinator who meets ALL of the following? ☒ Is available at all times to respond to emergencies at the site ☒ Is familiar with all aspects of site activities and the contingency plan ☒ Has authority to commit the resources needed to carry out the contingency plan	☒ Yes ☐ No
NR 630.22(1)(e)	5. Does the contingency plan include ALL of the following information? ☒ A designation of the primary and alternate emergency coordinator, if more than one person is listed ☒ The name, position, address and phone number, office and home, for each emergency coordinator ☒ A description of the site layout, types of wastes handled and associated hazards, places where employees work, and entrances (roads) accessing the site ☒ An evacuation plan for personnel including signal(s) to be used in the event of evacuation and alternate routes ☒ Procedures to notify local police, fire, hospitals, and emergency response teams in the event of a fire, explosion, or hazardous waste discharge ☒ Procedures for emergency shutdown of site operations Procedure is same as regular. ☒ A list of emergency equipment at the site, including location, description, and capabilities of each item	☒ Yes ☐ No

Emergency Stops

Fire – ADT security systems.
Fire department first
then notify manitowoc

NR 630.22(2)(a)	6. Does the plan require the emergency coordinator to do ALL of the following in the event of a fire, explosion, or discharge of hazardous wastes? ☒ Activate internal alarms or communication systems ☒ Telephone the division of emergency government (1-800-943-0003) ☒ Identify the character, source, amount, and extent of discharged hazardous materials ☒ Assess hazards to human health and the environment ☒ Immediately notify appropriate authorities, as necessary ☒ Take all reasonable measures necessary to ensure fires, explosions and discharges do not occur, reoccur, or spread ☒ Monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment if the site stops operation ☒ Provide for treating, storing, or disposing of recovered waste, contaminated soil, surface water, or other material ☒ Ensure wastes that are incompatible with the discharged material are not treated, stored or disposed until cleanup is completed ☒ Ensure that emergency equipment is clean and fit for use prior to resuming operations	☒ Yes ☐ No
NR 630.22(2)(b)	7. Will the generator notify the Department and appropriate local authorities prior to resuming operations?	☒ Yes ☐ No
Section I: Personnel Training Requirements		
NR 630.16(1)	1. Does the generator have a program of classroom instruction or on-the-job training for personnel in hazardous waste management?	☒ Yes ☐ No
NR 630.16(1) Evacuation drills	2. Are the following applicable items included in the training program? ☒ Contingency plan implementation Separate training for all employees. ☐ Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment ☒ Key parameters for automatic waste feed cut-off systems ☒ Communications and alarm systems ☒ Response to fires or explosions ☒ Response to groundwater contamination incidents ☒ Shutdown of operations	☒ Yes ☐ No
NR 630.16(2)	3. Are new employees trained within 6 months of their assignment?	☒ Yes ☐ No
NR 630.16(3)	4. Do personnel take part in an annual review of the training?	☒ Yes ☐ No
NR 630.16(4) presentations THE has them	5. Are ALL of the following training documents kept on-site for at least 3 years from each employee's last date of employment? ☒ Job titles and the employee name for each position related to hazardous waste management ☒ Job description of each of the above job titles ☒ Description of the amount and type of training that will be given to each employee ☒ Records that required training has been given to each employee	☒ Yes ☐ No
Section J: 90-Day Container Accumulation		
	1. Does the generator accumulate hazardous waste in containers? If NO, go to Section K. (roll off boxes - only one with waste at time of the inspection	☒ Yes ☐ No
NR 615.05(4)(a)5.	2. Are the containers marked with the starting date of accumulation?	☒ Yes ☐ No
NR 615.05(4)(a)6.	3. Are the containers accumulated for 90 days or less?	☒ Yes ☐ No
NR 615.05(4)(a)10.	4. Are containers marked with the words "Hazardous Waste"?	☒ Yes ☐ No
NR 615.05(4)(a)2.d.	5. Are all containers of hazardous waste in good condition?	☒ Yes ☐ No
NR 615.05(4)(a)2.j.	6. Are all containers made of or lined with materials that are compatible with the waste?	☒ Yes ☐ No
NR 615.05(4)(a)2.e.	7. Are all containers kept closed, except when it is necessary to add or remove waste?	☒ Yes ☐ No
NR 615.05(4)(a)2.f.	8. Are containers opened, handled or stored to prevent leaks or ruptures?	☒ Yes ☐ No

.05(4)(a)2.b.	9. Are containers and accumulation areas inspected weekly for leaks and defects?	☒ Yes ☐ No
NR 615.05(4)(a)2.c.	10. Are the inspections recorded into a log which includes ALL of the following? ☐ Date and time of inspection ☐ Name of inspector ☐ Notation of the observations made ☐ Date and nature of repairs or remedial actions	☒ Yes ☐ No
NR 615.05(4)(a)2.c.	11. Are the inspection records kept for at least 3 years from the date of the inspection?	☒ Yes ☐ No
NR 615.05(4)(a)2.g.	12. Are containers of ignitable or reactive waste located at least 50 feet from the property line? Closest corner in Building 614	☒ Yes ☐ No ☐ N/A
NR 640.15(1)	13. Are containers of incompatible wastes separated or protected from each other by a physical barrier (dike, berm, wall or other device)?	☒ Yes ☐ No ☐ N/A
NR 640.15(2)(b)	14. Are incompatible wastes stored in separate containers?	☒ Yes ☐ No ☐ N/A
NR 640.15(2)(a)	15. Are containers that previously held an incompatible waste properly washed before adding waste?	☐ Yes ☐ No ☒ N/A
Section K: Satellite Accumulation		
	1. Does the generator accumulate waste at or near the generation point? If NO, go to Section L.	☒ Yes ☐ No
NR 615.05(4)(c)1.	2. Are the containers in good condition?	☒ Yes ☐ No
NR 615.05(4)(c)2.	3. Are the containers always kept closed except when it is necessary to add or remove waste?	☒ Yes ☐ No
NR 615.05(4)(c)3.	4. Are containers opened, handled or stored to prevent leaks or ruptures?	☒ Yes ☐ No
NR 615.05(4)(c)4.	5. Does the generator accumulate no more than 55 gallons of hazardous waste or 1 quart of acute hazardous waste in each satellite area? (separate waste streams)	☒ Yes ☐ No
NR 615.05(4)(c)5.	6. Are the containers marked "hazardous waste" or other words that identify the contents?	☒ Yes ☐ No
NR 615.05(4)(c)6.	7. Are the containers immediately marked with the date the excess amount is generated? couldn't verify.	☒ Yes ☐ No
NR 615.05(4)(c)6.	8. Does the generator comply with the 90 day accumulation requirements with respect to the excess amount within 3 days of it being generated?	☒ Yes ☐ No
Section L: Waste Minimization		
NR 615.09(2)	1. Does the generator include waste minimization information in the annual report?	☒ Yes ☐ No
NR 615.09(1)(a)	2. Does the generator have a program in place to reduce the volume or quantity and toxicity of waste to an economically practicable degree?	☒ Yes ☐ No
NR 615.09(1)(b)	3. Does the generator have a written waste minimization/pollution prevention plan, as recommended by EPA guidance?	☒ Yes ☐ No
NR 615.09(1)	4. Is evidence gathered during the inspection to justify the generator's waste minimization certification on the manifest?	☒ Yes ☐ No
Section M: Treatment with Absorbent Materials		
NR 615.05(5)	1. Does the generator combine absorbent material with waste for the purpose of eliminating free liquids? If YES, see NR 615.05(5).	☐ Yes ☒ No
Section N: Universal Waste Management		
Are universal wastes generated at the site? If NO, go to Section O.		☐ Yes ☐ No

Waste Type	Quantity Generated	On-Site Storage Method	On-Site Treatment (List)	Shipped to handler/destination facility (List)
Fluorescent bulbs	500 lamps/year	in boxes	—	Midwest Lamp.
Batteries.	As needed	change outs		Courtney Battery

Note: Management of CRTs and antifreeze as per department guidance should also be discussed with the generator.

690 Such. II	1. Does the generator comply with the small quantity handler requirements if <5,000 kg/yr is accumulated?	☒ Yes ☐ No ☐ N/A
NR 690 Subch. III	2. Does the generator comply with the large quantity handler requirements if >5,000 kg/yr is accumulated?	☐ Yes ☐ No ☒ N/A

NR 690.04(2)	3. If the universal waste is not recycled, has the generator complied with the applicable NR 600-685 requirements?	☐ Yes ☐ No ☒ N/A

Section O: Generator Status Evaluation

1. Is the Large Quantity Generator status confirmed by this inspection? ☒ Yes ☐ No
2. If No, what is the correct generator classification?
   ☐ Non-Generator ☐ Very Small Quantity Generator ☐ Small Quantity Generator
3. Are there any other on-site hazardous waste activities at the generator's location? ☒ Yes ☐ No
4. If YES, check all that apply.
   ☒ Accumulation in Tanks ☐ Recycling ☐ Transfer ☐ Transporter ☐ Treatment ☐ Storage ☐ Disposal

Inspection Comments. Add comments on additional pages if necessary.

Nitric acid tank (5,420 gallon) see attached checklist.

DNR Inspector Signature:	Date: 1/18/2006

ATTACHMENT 2
TANK SYSTEM STANDARDS INSPECTION FORM
FOR LARGE QUANTITY GENERATORS, TREATMENT AND STORAGE FACILITIES
HAZARDOUS WASTE MANAGEMENT PROGRAM
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

I. EXEMPTIONS [NR 645.04]

Indicate if any of these exemptions applies to the tank system:

- Tank systems which are part of a totally enclosed treatment facility.
- Tank systems which a small quantity generator is using to accumulate waste on site that is in compliance with Ch. NR 610.
- Tank systems which are part of a wastewater treatment unit provided the owner or operator is in compliance with the requirements of s. NR 630.04(1).
- Tank systems which are part of an elementary neutralization unit provided the owner or operator is in compliance with the requirements of s. NR 630.04(7).
- Tank systems which are part of a POTW storing spent pickle liquor prior to recycling at the POTW provided the tank is approved under s. 144.04 Stats.

Comments: _____

II. GENERAL INFORMATION

DEPARTMENT INFORMATION

DNR District: NORTHEAST Inspection date: JANUARY 18, 2006

~~DNR~~ Inspector(s) BRENDA OSWALD, U.S. EPA BARTI OUMAROU - WDNR

LARGE QUANTITY GENERATOR/TREATMENT/STORAGE FACILITY INFORMATION

Generator/TSF Name: MANITOWOC ICE, INC

U.S. EPA I.D. #: WID 980 570 014 FID #: 436017560

Generator/TSF Location: 2110 S. 26th STREET

Street: _____

City: MANITOWOC County: MANITOWOC Zip: 54221

Site Personnel Present: CHRIS R. MEYER Title: SR. PLANT MANAGER, P.E.

III. TANK SYSTEM(S) IDENTIFICATION

For a site with more than one hazardous waste tank system you should complete a separate copy of this form for each tank system or group of tank systems (e.g., several adjacent tanks with a common containment system, or several interconnected tanks constituting a treatment system).

This is number 1 of 1 tank system form(s) used for this inspection.

List only those Tank System(s) Evaluated by this Inspection Form:

Tank Name or I.D.#	Capacity (Incl. Units)	Type[1]	Construction Materials	Date Installed	Sec. Cont. Type[2]	Waste Code(s)	Waste Description	New or Existing[3]
Nitric	5420 gal	Above Ground		UNK.	Second tank/ diked area	D002	Nitric Acid	Existing

[1]Above ground; onground; inground; underground, enterable; or underground, non-enterable [NR 600.03(1), (106), (149), and (223)].
[2]External liner, vault, double walled tank, or other. A vault has its floor and walls entirely or almost entirely in the ground. An external liner may be constructed of either flexible or rigid materials.
[3]New tank systems or components are those for which construction began after March 1, 1991 [NR 600.03(142)].

IV. DESIGN AND INSTALLATION OF NEW TANK SYSTEMS OR COMPONENTS [NR 645.08]

New tank systems or components are those for which construction began after March 1, 1991. [NR 600.03 (142)] N/A

The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing or placing a new tank system or component in use, an independent qualified installation inspector or an independent, qualified, registered professional engineering, in accordance with s. NR 680.05(2)(d), either of whom is trained and experienced in the proper installation of tank systems or tank system components, shall inspect the system. All discrepancies shall be remedied before the tank system is covered, enclosed or placed in use. [NR 645.08(2)]

A.	Does the owner or operator keep on file at the facility, written statements by those persons who are required to certify the design of the new tank system and supervise the installation of the tank system, and any required repairs, including the certification statements as required in s. NR 680.05(2)(d)? [NR 645.08(7)]	Yes	No	
B.	Do the written statements attest to the inspection for (a) weld breaks, (b) punctures, (c) scrapes of protective coatings, (d) cracks, (e) corrosion, and (f) other structural damage or inadequate construction or installation? [NR 645.08(2)]	Yes	No	
C.	Do the written statements show that all new tanks and ancillary equipment were tested for leak tightness prior to being covered, enclosed or placed in use, and that all repairs necessary to remedy any leak in the system were performed prior to the tank system being covered, enclosed, or placed into use? [NR 645.08(4)]	Yes	No	
D.	If the Department, in its review of the proposed tank system, required corrosion protection recommended by an independent corrosion expert, do the written statements show that any field fabrication was supervised by an independent corrosion expert to ensure proper installation? [NR 645.08(6) & (7)]	Yes	No	NA
E.	Are new tank systems or components and piping that are placed <u>underground</u> and backfilled provided with a backfill material that is a noncorrosive, porous and homogenous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported? [NR 645.08(3)]	Yes	No	NA

F. Is all new ancillary equipment supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction? [NR 645.08(5)] Yes No

Comments: _____

_____

_____

_____

V. SECONDARY CONTAINMENT AND RELEASE DETECTION [NR 645.09]

Note: See the attached illustration outlining secondary containment and assessment requirements for LQG and TSD Tank Systems.

A. Is the tank system used exclusively for storage or treatment of waste that contains no free liquids (EPA Method 9095: Paint Filter Liquids Test, EPA SW-846) and located inside a building with an impermeable floor, designed and built with a continuous base, free of cracks or gaps, and impervious to the waste? If the answer is yes, do not apply the requirements of NR 645.09. Attach relevant documentation. [NR 645.09(1)] Yes No

B. Indicate which of the following will be used to determine the deadline for compliance with this section. [NR 645.09]

1. [ ] New tanks and their ancillary equipment must have secondary containment and leak detection prior to use. [NR 645.09(3)(a)]

2. [ ] For tanks and ancillary equipment containing dioxins (F020-23, F026-7), the deadline is September 1, 1993. [NR 645.09(3)(b)]

3. Tanks that are underground and can not be entered and their ancillary equipment [NR 645.09(3)(c)]:

   [ ] First consider documentable age of tank system: Deadline March 1, 1991, or when the tank system is 15 years old, whichever is later.

   [ ] If tank age is undocumented, determine age of facility. If construction began before March 1, 1984, deadline is January 12, 1995. If construction began after March 1, 1984, deadline is March 1, 1991 or when facility is 15 years old, whichever is later.

4. Other tanks and their ancillary equipment [NR 646.09(3)(d)]:

   [ ] First consider documentable age of tank system: Deadline is September 1, 1991, or when the tank system is 15 years old, whichever is later.

[X] If tank is undocumented, determine age of facility. If construction began before March 1, 1984, deadline is September 1, 1999. If construction began after March 1, 1984, deadline is September 1, 1999 or when facility is 15 years old, whichever is later.

C. Based on the above, what is the deadline for compliance with this section? (Add comments if the deadline has passed for some tanks or components but not for others. If a deadline has not yet passed, continue to fill out this section for informational purposes, but do not cite discrepancies as violations of NR 645.09. Also, note any historical violations where compliance occurred after a deadline.) Deadline: SEPTEMBER 1, 1999

Comments: _____

D. "Tank system component" refers to the tank or to ancillary equipment such as pipes, fittings, flanges, valves and pumps. Ancillary equipment must meet the secondary containment and leak detection requirements (e.g., lined or coated trench, jacketing, double walled piping) unless specifically exempted. Indicate any applicable exemptions to secondary containment and leak detection requirements for auxiliary equipment:

- [ ] Above ground piping, inspected visually on a daily basis, for which any and all flanges, joints, and connections are welded. [NR 645.09(8)(a) & (b)]
- [ ] Sealless or magnetic coupling pumpings and sealless valves, that are inspected visually on a daily basis. [NR 645.09(8)(c)]
- [ ] Pressurized above ground piping systems with automatic shut-off devices that are inspected visually on a daily basis. [NR 645.09(8)(d)]

E. Is the secondary containment system:

1. Designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system? [Note: Due to the relative permeability of concrete, concrete liners and vaults require an impermeable coating or lining.] [NR 645.09(4)(a)] — Yes No

2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed? [NR 645.09(4)(b)] — Yes No

F. Is the secondary containment system, at a minimum:

1. Constructed of or lined with materials that are compatible with wastes that are to be placed in the tank system and have sufficient strength and thickness to prevent failure owing to the pressure gradients, including static head and external hydrological forces, physical contact with the waste to which it is exposed and climatic conditions and the stress of daily operation, including stresses from nearby vehicular traffic? [NR 645.09(5)(a)] — Yes No

2. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression or uplift? [NR 645.09(5)(b)] — Yes No

3. Provided with a leak detection system that is designed and operated to detect the failure of either the tank system or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours or at the earliest practicable time if the owner or operator can demonstrate to the department that existing detection technologies or site conditions will not allow detection of a release within 24 hours? [NR 645.09(5)(c)]; and — Yes No

4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as possible to prevent harm to human health and the environment, if it can be demonstrated to the department that removal of the released waste or accumulated precipitation cannot be accomplished with 24 hours? [NR 645.09(5)(d)] — Yes No

Comments: _____

_____

_____

G. Does the secondary containment include one or more of the following devices: [NR 645.09(6)(a)]

1. A liner, external to the tank? [NR 645.09(6)(a)]; — Yes No

2. A vault? [NR 645.09(6)(b)]; — Yes No

3. A double walled tank? [NR 645.09(6)(c)]; — Yes No

4. An equivalent device as approved by the department? [NR 645.09(6)(d)]. Yes No

Comments: Tank within a tank, plus diked area around tank, plus sloping floor outside of diked area to a wastewater treatment trench system

H. Is the external liner system

1. Designed or operated to contain 100% of the capacity of the largest tank and its ancillary equipment within its boundary? [NR 645.09(7)(a)1] (Yes) No

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the secondary containment system has sufficient excess capacity to contain run-on or infiltration. Excess capacity shall be sufficient to contain precipitation from a 25 year, 24 hour rainfall event? [NR 645.09(7)(a)2] (Yes) No

3. Free of cracks or gaps? [NR 645.09(7)(a)3] (Yes) No

4. Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank or tanks? (must prevent lateral and vertical migration) [NR 645.09(7)(a)4] (Yes) No

Comments: _____

I. Is the vault system (N/A)

1. Designed and operated to contain 100% of the capacity of the largest tank and its ancillary equipment with in its boundary? [NR 645.09(7)(b)1] Yes No

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the secondary containment system has sufficient excess capacity to contain run-on or infiltration. The excess capacity shall be sufficient to contain precipitation from a 25 year, 24 hour rainfall event? [NR 645.09(7)(b)2] Yes No

3. Constructed with chemical resistant water stops in place of all joints, if any? [NR 645.09(7)(b)3] Yes No

4. Provided with an impermeable interior coating or lining that is compatible with the stored or treated waste and that shall prevent migration of waste into the construction material of the vault? [NR 645.09(7)(b)4] Yes No

5. Provided with a means to protect against the formation and ignition of vapors within the vault, if the waste being stored to treated meets the criteria of an ignitable waste [NR 605.08(2)] or reactive waste [NR 605.08(4)] which may form an ignitable or explosive vapor? [NR 645.09(7)(b)5] Yes No

6. Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure? [NR 645.09(7)(b)6] Yes No

Comments: _____

_____

J. Are the double walled tanks N/A

1. Designed as an integral structure so that any release from the inner tank is contained by the outer shell? [NR 645.09(7)(c)1] Yes No

2. Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell? and [NR 645.09(7)(c)2] Yes No

3. Provided with a built-in continuous leak detection system capable of detecting a release with 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the department, and the department concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours? [NR 645.09(7)(c)3] Yes No

Comments: _____

Note: The remaining items of this section apply to all tank systems which do not yet have secondary containment that meets the requirements of NR 645.09.

K. For tanks that are underground and cannot be entered, has a leak test that meets the requirements of NR 645.07(2)(e) or other tank integrity method, as approved by the Department, been conducted at least annually? [NR 645.09(11)(a)] Yes No NA

Comments: _____

L. For other than underground tanks that cannot be entered, have annual leak tests been documented, or alternatively, have scheduled assessments by independent registered professional engineers been conducted that are adequate to detect obvious cracks, leaks and corrosion or erosion, and is the frequency of these assessments based upon the construction material of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection and the characteristics of the waste being stored and treated? [NR 645.09(11)(b)] — Yes (No)

Comments: _____

M. For ancillary equipment, has a leak test or other integrity assessment as approved by the Department been conducted at least annually? [NR 645.09(11)(c)] — Yes (No)

Comments: _____

N. Have the results of the assessments required in items K, L, and M above been maintained on file at the facility? [NR 645.09(11)(d)] — Yes No (N/A)

Comments: _____

O. Has a tank system or component been found to be leaking or unfit for use? [NR 645.09(11)(e)] — Yes (No)

Comments: Checked visually every week.

P. If yes, have the requirements of NR 645.12 been complied with? Attach a separate report. [NR 645.09(11)(e)] — Yes No (N/A)

Comments: _____

Note: If the tank system is a new tank system, skip to Section VII.

VI. ASSESSMENT OF EXISTING TANK SYSTEM'S INTEGRITY [NR 645.07]

Existing tank systems or components are those which were in operation or for which installation had begun on or before March 1, 1991. Each existing tank system is subject to the following requirements until it has secondary containment meeting the requirements of NR 645.09 . (Note: Tank systems handling wastes that become classified as hazardous after March 1, 1991 must comply with these requirements within 12 months of the date that the waste becomes hazardous waste. [NR 645.07(3)].)

A. Does the tank system already have secondary containment that meets the requirements of NR 645.09, as determined in the previous section of this form? If yes, skip the remainder of section VI. [NR 645.07(1)] — (Yes) No

→ No leak detection system

B. Has the owner or operator determined that the tank system is not leaking and is fit for use? [NR 645.07(1)] — Yes (circled) No

visual inspection only.

C. Does the owner or operator keep on file at the facility a written assessment, reviewed and certified by an independent, qualified, registered professional engineer in accordance with s. NR 680.05(2)(d), that attests to the tank system's integrity? [NR 645.07(1)] (Note: This requirement must be complied with by September 1, 1992.) — Yes No (circled)

Comments: _____

	Yes	No	N/A
D. Does the assessment determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the wastes that it will not collapse, rupture or fail? [NR 645.07(2)]			
E. Does the assessment include design standards according to which the tank and ancillary equipment were constructed? [NR 645.07(2)(a)]	Yes	No	
F. Does the assessment consider hazardous characteristics of the waste or wastes that have been and will be handled? [NR 645.07(2)(b)]	Yes	No	
G. Does the assessment consider existing corrosion protection measures? [NR 645.07(2)(c)]	Yes	No	
H. Does the assessment document the age of the tank system? [NR 645.07(2)(d)]	Yes	No	
I. Does the assessment consider results of a leak test, internal inspection or other tank system integrity examination such that:	Test Method Used _____		
For underground tanks that cannot be entered, the effects of temperature variations, tank end deflection, vapor pockets and high water table effects are taken into account? [NR 645.07(2)(e)1]	Yes	No	NA
For other tanks and for ancillary equipment, the assessment addresses cracks, leaks, corrosion and erosion? [NR 645.07(2)(e)2]	Yes	No	NA
J. Has the assessment determined that a tank system is found to be leaking or unfit for use? [NR 645.07(4)]	Yes	No	
K. If so, has the owner or operator complied with the requirements of NR 645.12 (Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.)? [NR 645.07(4)]	Yes	No	NA

L. If the tank system contains volatile wastes, is it in compliance with all appropriate air management rules contained in chs. NR 400 to 499 regarding the control of organic compound emissions? [NR 645.07(5)] Yes No (N/A)

Comments: _____

VII. Licensing for Storage or Treatment [645.05]

If this is a treatment or storage facility, it must have one of the following:

Interim license	Yes	No
Operating License	Yes	No
Variance	Yes	No
Waiver	Yes	No

Does this mechanism allow storage or treatment in the tank system? Yes No

Comments: GENERATOR

VIII. GENERAL OPERATING REQUIREMENTS [NR 645.10]

Guidelines For Visual Tank System Inspection:

Metal Tanks: leaks, corrosion, discolored paint, cracks (especially around nozzles, welds, rivets), buckling, bulging, erosion around foundation, rotting of wooden supports, welds and anchor bolts between tank bottoms and ringwalls, deterioration of protective coatings.

Fiberglass - Reinforced Plastic Tanks: leaks, bending, flexing, longitudinal cracks (especially) in horizontal tanks, vertical cracks (especially) in vertical tanks.

Concrete Tanks - Above Ground Portions: leaks, wet spots, deterioration of protective coatings, cracks.

Ancillary Equipment: Corrosion around pipe bends, elbows, flexible hoses, traffic passing over hoses, defective valves, stems and handles, excessive vibrations, pump cavitation, leaky pump seals, missing anchor bolts, excessive dirt, burning odors or smoke, depleted oil reservoir in compressors.

A. Have any hazardous wastes or treatment reagents been placed in a tank system that could cause the tank, its ancillary equipment or the secondary containment system to rupture, leak, corrode or otherwise to fail? [NR 645.10(1)] Yes (No)

TANK IS 5,420 gallons. Waste shipped every 90 days. In past year, only shipped
3700 gal 11/14/05
1800 gal 8/31/05
2800 gal 6/02/05
2200 gal 3/02/05
1780 gal 11/29/04.
3500 gal 9/01/04
B.O.

B. Has the owner or operator used appropriate controls and practices to prevent spills and overflows from tanks or secondary containment system, including, at a minimum: (a) spill prevention controls including check valves or dry disconnect couplings, (b) overfill prevention controls, including level sensing devices, high level alarms, automatic feed cutoff or bypass to another tank, and (c) maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation? [NR 645.10(2)] — Yes **No**

In accordance with s. NR 630.31(1) and (2), is the identify and location of all stored and treated hazardous waste known throughout the entire storage or treatment period? [NR 645.10(4)] — **Yes** No

IX. INSPECTIONS [NR 645.11]

A. Does the owner or operator follow a schedule and procedure for inspecting overfill controls? [NR 645.11(1)] — Yes **No**

(*) Only once per week.

B. Does the owner or operator inspect at least once each operating day:

1. Overfill and spill control equipment, including waste feed cutoff systems, bypass systems and drainage systems to ensure that they are in good working order? — Yes No **N/A** Don't Have

2. The above ground portions of the tank system, if any, to detect corrosion or release of waste? — (*) **Yes** No NA

3. Data gathered from monitoring and leak detection equipment, including pressure or temperature gauges and monitoring wells to ensure that the tank system is being operated according to its design? — Yes No **N/A** Don't Have

4. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of release of hazardous waste? [NR 645.11(2)] — (*) **Yes** No

Comments: See margin comments above, left.

C. Has the owner or operator inspected cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly: (a) the proper operation of the cathodic protection system shall be confirmed within 6 months after initial installation and annually thereafter; and (b) all sources of impressed current shall be inspected or tested as both, as appropriate, at least bimonthly? [NR 645.11(3)] — Yes No **NA**

D. Has the owner or operator documented each inspection in the operating record of the facility? [NR 645.11(4)] Weekly only — Yes No N/A

X. RESPONSE TO LEAKS OR SPILLS & DISPOSITION OF LEAKING OR UNFIT FOR USE TANK SYSTEMS [NR 645.12]

A. Has the tank system or secondary containment system been found to be unfit for use, or has there been a leak or spill from the tank system or secondary containment system? [NR 645.12] — Yes No

Comments: _____

If yes, have the requirements of NR 645.12 been met? (Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.) [NR 645.12] Attach a separate report. — Yes No NA

Comments: _____

XI. IGNITABLE OR REACTIVE WASTE REQUIREMENTS [NR 645.10]

A. Ignitable or reactive waste shall be separated and protected from sources of ignition or reaction including open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks, spontaneous ignition and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste. Have these precautions been taken to prevent accidental ignition or reaction of these wastes? [NR 645.10(5) and 630.17(1)] — Yes No N/A

B. Are the requirements of NR 600.04 and chs NR 610 to 685, covering the treatment, storage or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes or material being conducted so that it does not: (a) generate extreme heat or pressure, fire or explosion or violent reaction; (b) produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health or the environment; (c) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; (d) damage the structural integrity of the device or facility containing the waste; or (e) threaten human health or the environment? [NR 645.10(5) and 630.17(2)] — Yes No N/A

C. If items A or B above are applicable, the owner or operator shall document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests, such as bench scale or pilot scale tests, waste analyses as specified in s. NR 630.13(1), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions. Has this compliance been documented? [NR 645.10(5) and 630.17(3)] — Yes No N/A

Comments: _____

D. Have ignitable or reactive wastes been placed in the tank system? — Yes No

Comments: _____

E. If yes, have the setback requirements of NR 645.13 been met? (Refer to June 10, 1992 memorandum from Mike Barden to Fred Johnson or EPA Hazardous Waste Tank Systems Inspection Manual, pp. B-10A-E.) Attach a separate report. — Yes No NA

XII. INCOMPATIBLE WASTE REQUIREMENTS [NR 645.14]

A. Has hazardous waste been placed in a tank system that has not been decontaminated and that has previously held an incompatible waste or material? [NR 645.14(1)] — Yes No

B. If yes, have the requirements of s. NR 630.17(2) been complied with? [NR 645.14(2)] — Yes No NA

XIII. WASTE ANALYSIS & TRIAL TESTS [NR 645.15] (Only Complete this Section for TSF Tank Systems)

A. Has a tank system been used to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system? [NR 645.15] — Yes No NA

B. If yes, has the waste analysis required by 630.12 been performed? (TSFs) [NR 645.15(1)] — Yes No NA

C. Also, has the owner or operator (a) conducted waste analyses and trial tests, such as bench scale or pilot plant scale tests; or (b) obtained written, documented information on similar waste under similar operating conditions to show that the proposed storage or treatment will meet the requirements of s. NR 645.10(1)? [NR 645.15(1)] — Yes No NA

Comments: _____

XIV. CLOSURE AND LONG TERM CARE [NR 645.17] (Only Complete this Section for TSF Tank Systems)

A. Does the owner or operator of a treatment or storage facility have on hand a closure plan, contingent long-term care plan, and cost estimates in compliance with s. NR 645.17(1)(a)3? [NR 645.17] Yes No

Comments: _____

_____

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- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chris R. Meyer, P.E.
Manitowoc Ice Division
2110 South 26th Street
Manitowoc, WI 54221-1720

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) Jon Johnson | B. Date of Delivery 4-18-06

C. Signature
X Jon Johnson ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

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State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN
DEPT. OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ronald W. Kazmierczak, Regional Director

Northeast Region Headquarters
1125 N. Military Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-492-5800
FAX 920-492-5913
TDD 920-492-5912

February 21, 2000

MR CHRIS MEYER, PLANT ENGINEER
MANITOWOC ICE INC
2110 S 26TH STREET BOX 1720
MANITOWOC, WI 54221-1720

Subject: Close Out of Notice of Noncompliance, Large Quantity Generator Inspection, Manitowoc Ice, Inc., WID980570014, FID436017560, Manitowoc, Manitowoc County

Dear Mr. Meyer:

The purpose of this letter is to close out the NON issued to your company, December 27, 1999. A number of alleged violations were corrected during the inspection. Your letter (1-19-99) provided further documentation.

On February 4, 2000, I conducted a follow-up inspection along with Ms. Annette Weissbach, Metal Finishing Sector Specialist. At the time of the inspection, all containers holding hazardous waste were stored closed and accumulation area inspections were being logged. Further discussions regarding each point are presented below.

1. S. NR 615.05(1)(a), Wis. Adm. Code. All generators of solid waste shall determine if their waste is hazardous using the procedures specified in s. NR 615.06.

   Two waste streams have not been characterized:
   1) grinder swarf generated during de-burring in the sheet metal fabrication area,
   2) bead blasting waste
      a. baghouse dust,
      b. spent blasting grit.

   In your letter, you advised that these waste streams are being characterized and would send lab results when available.

   At the time of the follow-up inspection, you presented documentation that these waste streams have been tested and the samples analyzed were not hazardous by TCLP for the RCRA metals.

2. S. NR 615.08(10), Wis. Adm. Code. A generator...who uses a manifest from a consignment state that is not Wisconsin shall send a photocopy of the copy received from the operator of the facility to which the hazardous waste is shipped, to the department within 5 business days of receiving the copy from that facility.

   At the time of the inspection, our records indicated (and you verified) that copies of *out of state* manifests were not being sent to the Department. You agreed to make copies of past manifests and send these in to the PO Box address found on the Wisconsin Uniform Manifest.

   In your January 19, 1999, letter you stated those copies had been made and sent into the Department.

3. S. NR 615.09(1)(a), Wis. Adm. Code. Waste Minimization. The generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable...

   At the time of the inspection, you stated that while you have taken waste minimization steps, you do not have a formal Waste Minimization Plan. You will need to compile a plan describing steps you have taken to reduce the volume, and toxicity of your hazardous waste. The following is a note taken from code.

   Note: EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31114, May 28, 1993, states that a generator or TSD should document its program (in writing) and that the program should be signed by the corporate officer who is responsible for ensuring RCRA compliance. While each element may be implemented in different ways depending on the needs and preferences of individual organizations or facilities the general elements that each waste minimization program should include are: A) Top management support; B) Characterization of waste generation and waste management costs; C) Periodic waste minimization assessments; D) A cost allocation system; E) Encourage technology transfer; and F) Program implementation and evaluation.

   You have presented further evidence that a Waste Minimization plan is being utilized.

3. S. NR 615.05(4)(a)2.b, Wis. Adm. Code. The generator shall inspect all areas where containers are stored as well as all containers used for storing hazardous waste at least weekly for evidence of leakage, corrosion or deterioration of the containers or discharge confinement structures, such as dikes.

   At the time of the inspection, the last accumulation area inspection was documented as taking place on October 29, 1999. You will need to inspect your accumulation areas **weekly**.

   At the time of the follow-up inspection, you presented documentation that weekly inspections are being conducted.

4. NR 615.05(4)(a)2.c, Wis. Adm. Code. The generator shall record the inspections under subpar. b. in an inspection log or summary. These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observation made, and the date and name of any repairs or other remedial actions.

   The inspection log you presented was not accumulation area specific. You should be completing a log for each accumulation area. The log found in Appendix A of your *Hazardous Waste and Spill Response Training Manual* is more appropriate. Also, please consult the code section for more detail.

   At the time of the follow-up inspection, you presented completed accumulation area inspection logs.

5. NR 615.05(4)(a)3.a, Wis. Adm. Code. The generator shall inspect all tanks used for storing hazardous waste at least weekly for evidence of leakage, or corrosion or deterioration of the tank or discharge confinement structures, such as dikes.

   At the time of the inspection, you stated that you were not performing inspections of the spill containment tank serving your drum storage building. You will need to begin inspecting the tank serving the accumulation area.

   At the time of the follow-up inspection, you presented completed accumulation area inspection logs that include inspection of the spill containment tank – specifically to determine if the tank was empty.

6. NR 615.05(4)(a)3.c. The generator shall record the inspections under subpar. a. in an inspection log or summary. These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

   At the time of the inspection, you were not conducting or logging inspections of the spill containment tank. At the time of the inspection, the tank did not seem to contain liquids but a small amount of what appeared to be a solid foam was seen on the tank bottom (Mr. Stueck verified a foam discharge in the accumulation building which may have collected in the tank).

   Note: At the time of the inspection, we discussed removal of the tank and alteration of the building to provide containment. Please keep me advised as to your decision.

   At the time of the follow-up inspection, you presented completed accumulation area inspection logs that include inspection of the spill containment tank – specifically to determine if the tank was empty.

7. NR 630.22(1)(e)1, Wis. Adm. Code. The name, position, address and phone number, office and home, of all persons qualified to act as facility emergency coordinator as described in par. (d), and this list shall be kept up to date. Where more than one person is listed, one shall be designated as the primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. For new facilities, this information shall be supplied to the department at the time an operating license application is submitted.

   At the time of the inspection, your contingency plan did not contain the home address and phone numbers of your emergency coordinators. Mr. Meyer advised that he was updating the contingency plan and would include this information.

In your January 19, 1999, letter you provided a copy of the updated emergency coordinators list that includes home addresses and phone numbers.

8. S. NR 630.16(4)(a), Wis. Adm. Code. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job.

   In your training plan, you will need to include job titles for each employee trained in hazardous waste management.

   In your letter (1-19-00) you stated that job titles would be added to the training plan. At the time of the follow-up inspection, we discussed appropriate language for this requirement and you agreed to submit a copy of the training plan to me by March 7, 2000.

9. S. NR 630.16(4)(b), Wis. Adm. Code. A written job description for each position listed under par. (a). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company, location or bargaining unit, but shall include the requisite skill, education or other qualifications, and duties of facility personnel assigned to each position.

   In your training plan, you will need to include written job descriptions.

   In your letter (1-19-00) you stated that written job descriptions would be added to the training plan. At the time of the follow-up inspection, we discussed appropriate language for this requirement and you agreed to submit a copy of the training plan to me by March 7, 2000.

10. S. NR 615.05(4)(a)2.g, Wis. Adm. Code. Containers holding ignitable or reactive waste shall be located at least 50 feet from the generation site's property line.

    You will need to accumulate your ignitable and reactive waste at least 50 feet from the property line. Please discuss steps you will take to ensure that this is accomplished.

You have provided a plan sheet delineating an accumulation area in your barrel room located at least 50 feet from the property line. In your letter (1-19-00) you stated that you would ensure that ignitable hazardous waste would be accumulated in a designated area within your barrel room that is greater than 50 feet from the property line.

Once again, thank you for your cooperation and attention to these matters. At this time the only outstanding items you need to address are the submittal of your training plan. You have agreed to submit this document to me by March 7, 2000.

If you have any questions, please contact me at 920-492-5942.

Sincerely,

Karl P. Roovers
Waste Management Specialist
Solid and Hazardous Waste

Kpr

Cc: Len Polczinski/Diane Hammel, NER
WA/3, HWM
Walt Francis, U.S. EPA, Waste, Pesticides and Toxics Division, Enforcement and Compliance Assurance Branch, 77 West Jackson Blvd. (DRE-9J), Chicago, IL 60604-3590

FEB 17 2000

DE-9J

Mr. Robert Walters
Manufacturing Production Supervisor
Manitowoc Ice, Inc.
2110 South 26th Street
P.O. Box 1720
Manitowoc, Wisconsin 54221-1720

Re: Letter of Acknowledgment
Manitowoc Ice, Inc.
Manitowoc, Wisconsin
~~WID 981 001 787~~
WID 980 570 014

Dear Mr. Walters:

On December 21, 1999, your installation located in Manitowoc, Wisconsin, was inspected by United States Environmental Protection Agency (U.S. EPA) and Wisconsin Department of Natural Resources (WDNR) representatives. The purpose of the inspection was to evaluate compliance with certain requirements of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, transportation, and storage of hazardous waste.

U.S. EPA did receive a copy of the December 27, 1999, Notice of Noncompliance sent to you from the WDNR.

As of this writing, our review of the inspection has not resulted in the detection of violations of any of the 40 CFR Part 265 Subpart CC (Air Emission Standards for Containers) RCRA requirements (see enclosed photos).

Although, during the inspection of the Maintenance Shop it was observed that Manitowoc Ice was using a 55 gallon container labeled F005 (spent non-halogenated solvents consisting of hexane, acetone and toluene) for solvent waste satellite accumulation. This container would be subject to the 40 CFR Part 265 Subpart CC regulations when it is moved to your hazardous waste storage area. In addition, the container storage area building spill containment tank would also be subject to Subpart CC if any spilled solvent waste with greater than 500 ppmw VOCs was not removed from the spill containment tank within 24 hours.

This determination does not limit the applicability of either the requirements examined or other RCRA regulations. Your installation will continue to be evaluated by U.S. EPA and the WDNR in the future.

If you have any questions and/or concerns regarding this matter, please contact Walt Francis of my staff at (312) 353-4921.

Sincerely yours,

for Paul Little, Chief
Compliance Section #2
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division

Enclosure

cc: Karl Roovers, WDNR-Northeast Region

OFFICIAL FILE COPY

ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	MINN/OHIO SECTION CHIEF	MICHIGAN/ WISCONSIN SECTION CHIEF	ILLINOIS/ INDIANA SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
WS 2/15/2000		[illegible] 2-17-00			

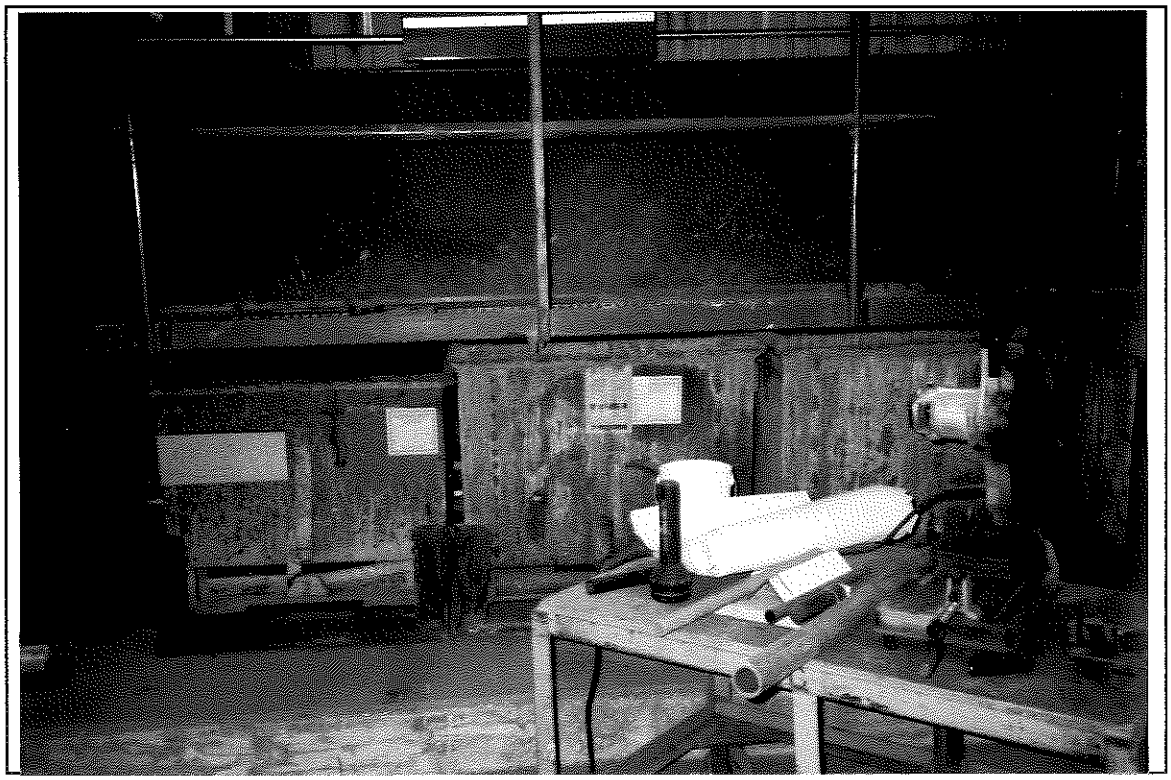
Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

Stainless Steel Grinding/Deburring Dust Container

Satellite Accumulation Area (1 cubic yard container) of Electroless Nickel Plating Filters

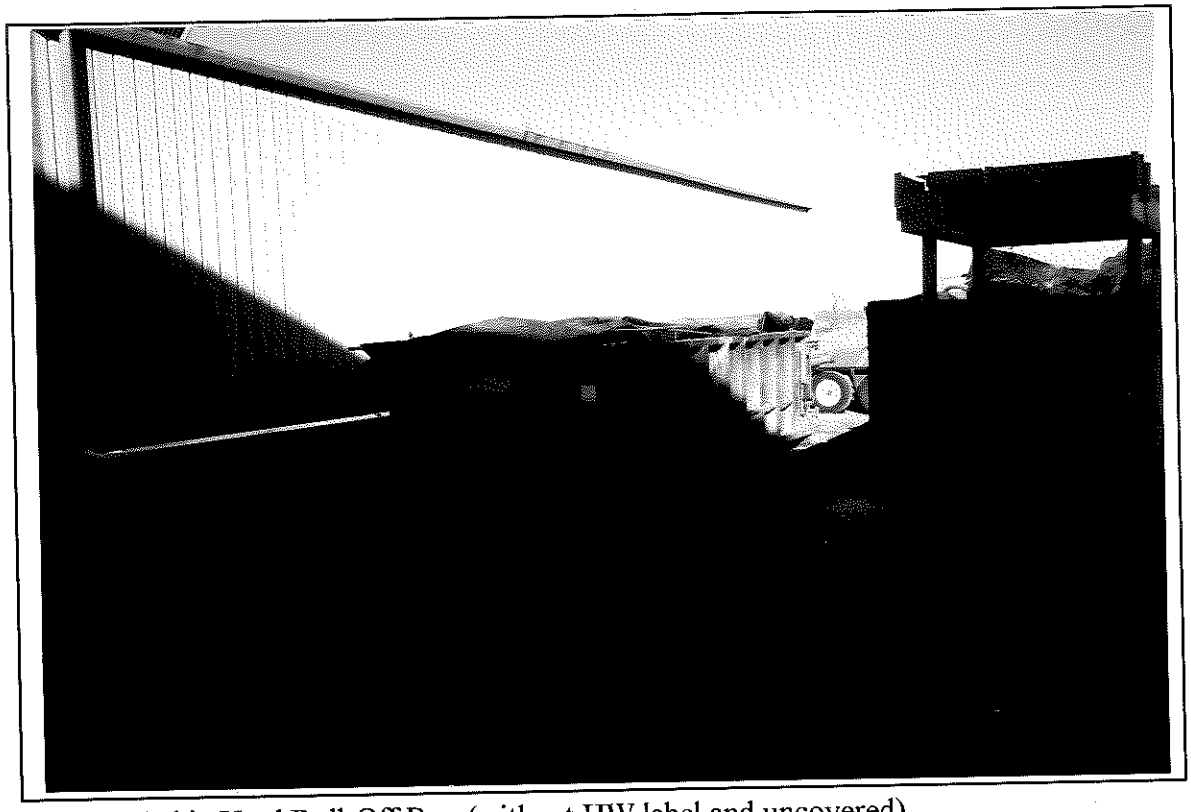
Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

Wastepile of Soil and Spilled Plating Solution



F006 Sludge Lugger Boxes Under Wastewater Treatment System Filterpress

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99



F006 20 Cubic Yard Roll-Off Box (without HW label and uncovered)

Plating Solution Spill Tank

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

Plating Solution Spill Containers

Plating Solution Tank Storage

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

Maintenance Shop Sand Blaster Baghouse and Dust Collection

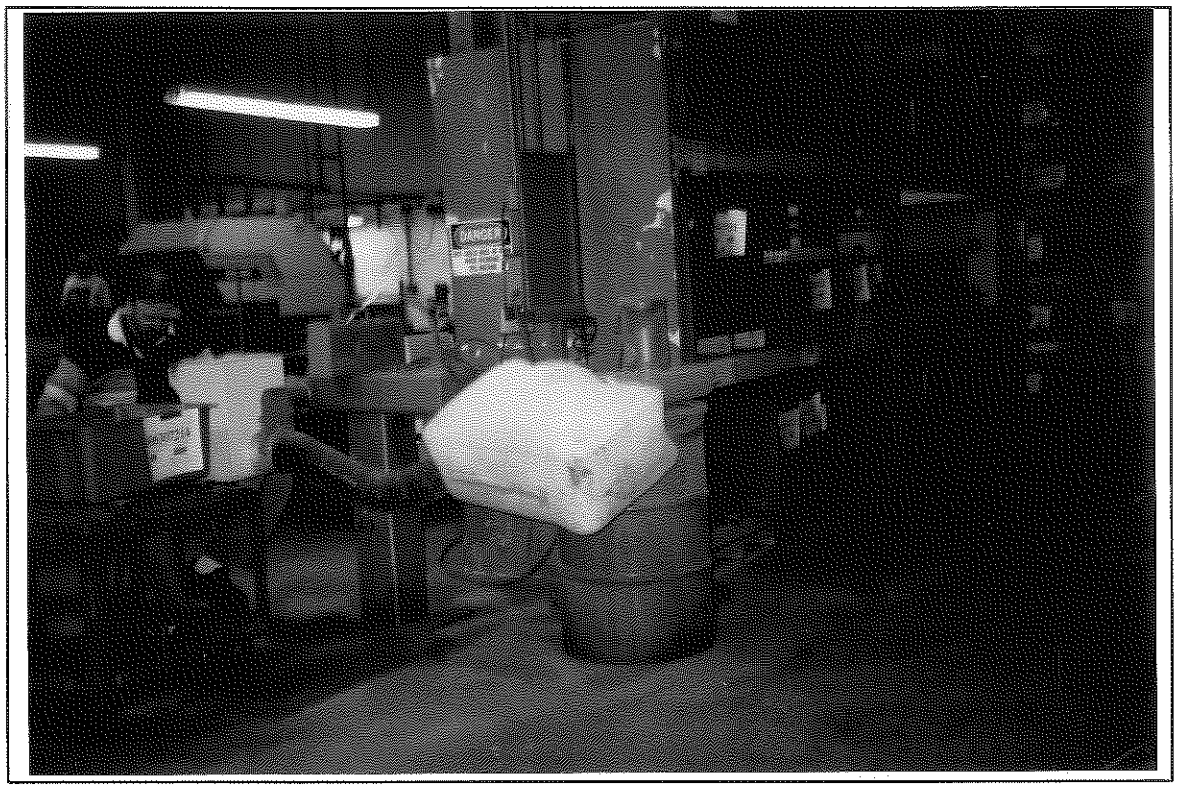
90-Day Container Accumulation Area

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

E006 20 Cubic Yard Roll-Off Box (with HW Label and covered)

90-Day Container Accumulation Area Spill Containment Tank

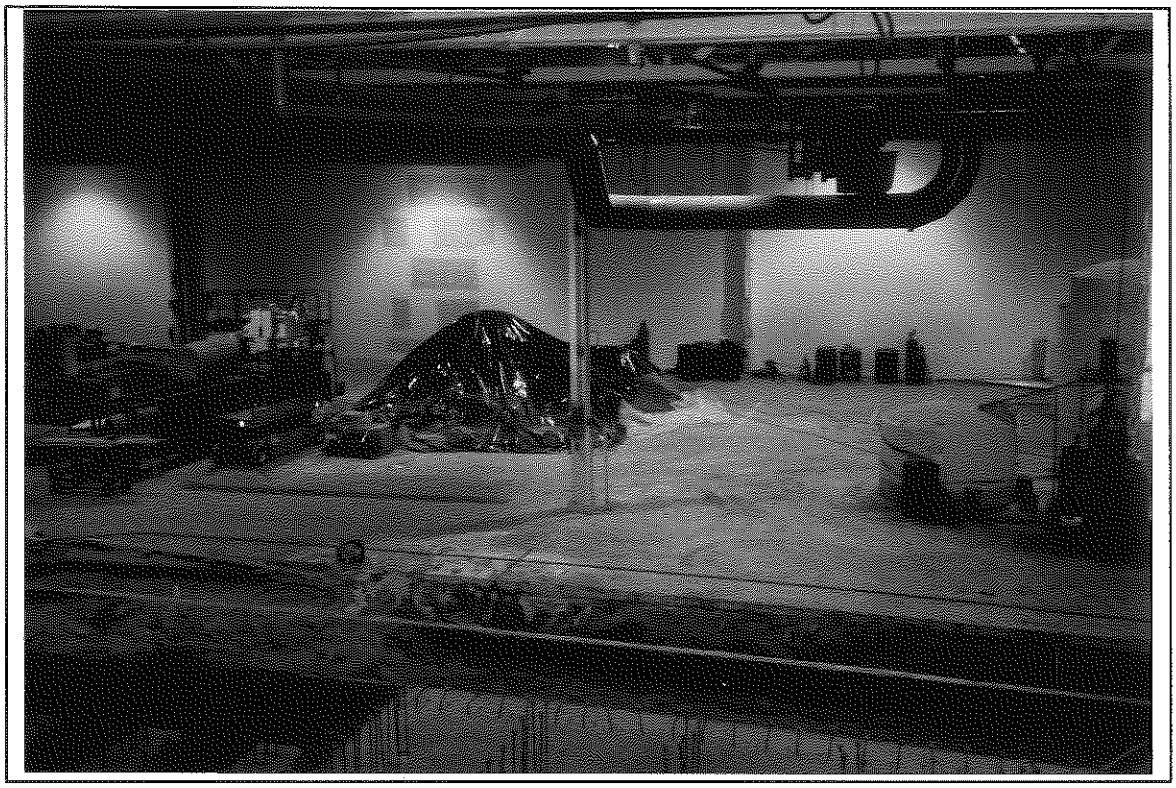
Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99



Stainless Steel Grinding/Deburring Dust Container

Satellite Accumulation Area (1 cubic yard container) of Electroless Nickel Plating Filters

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99



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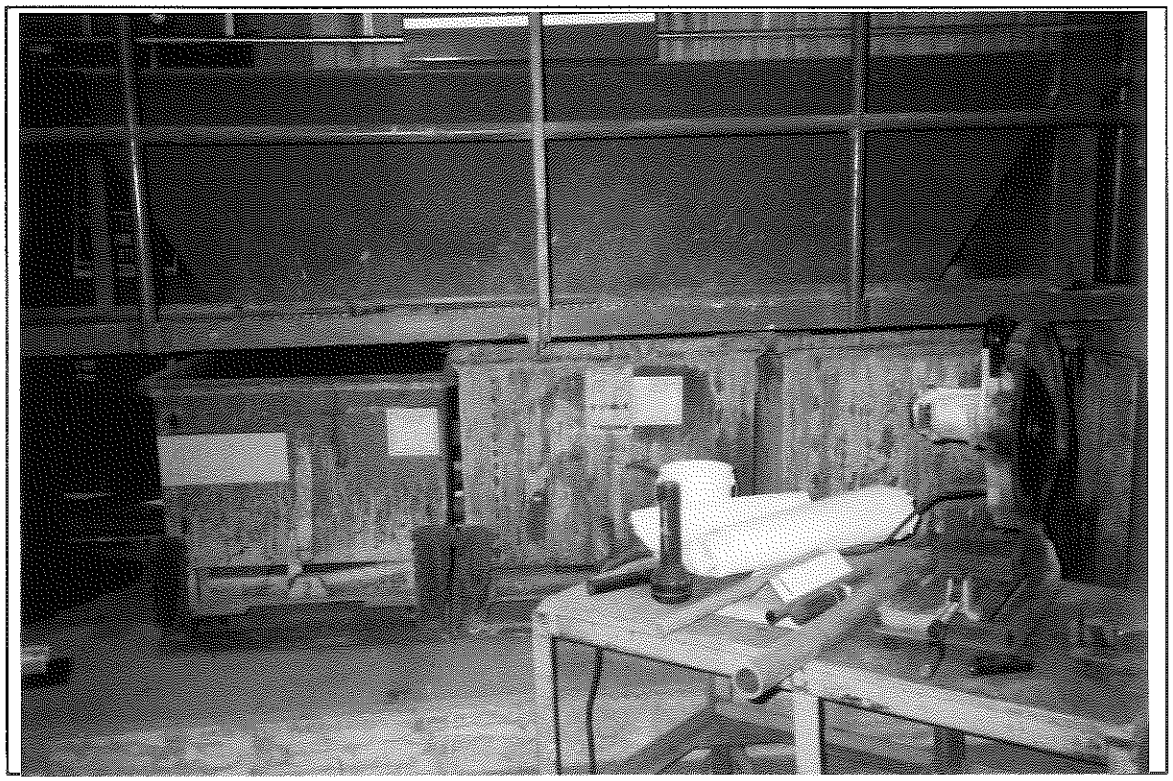

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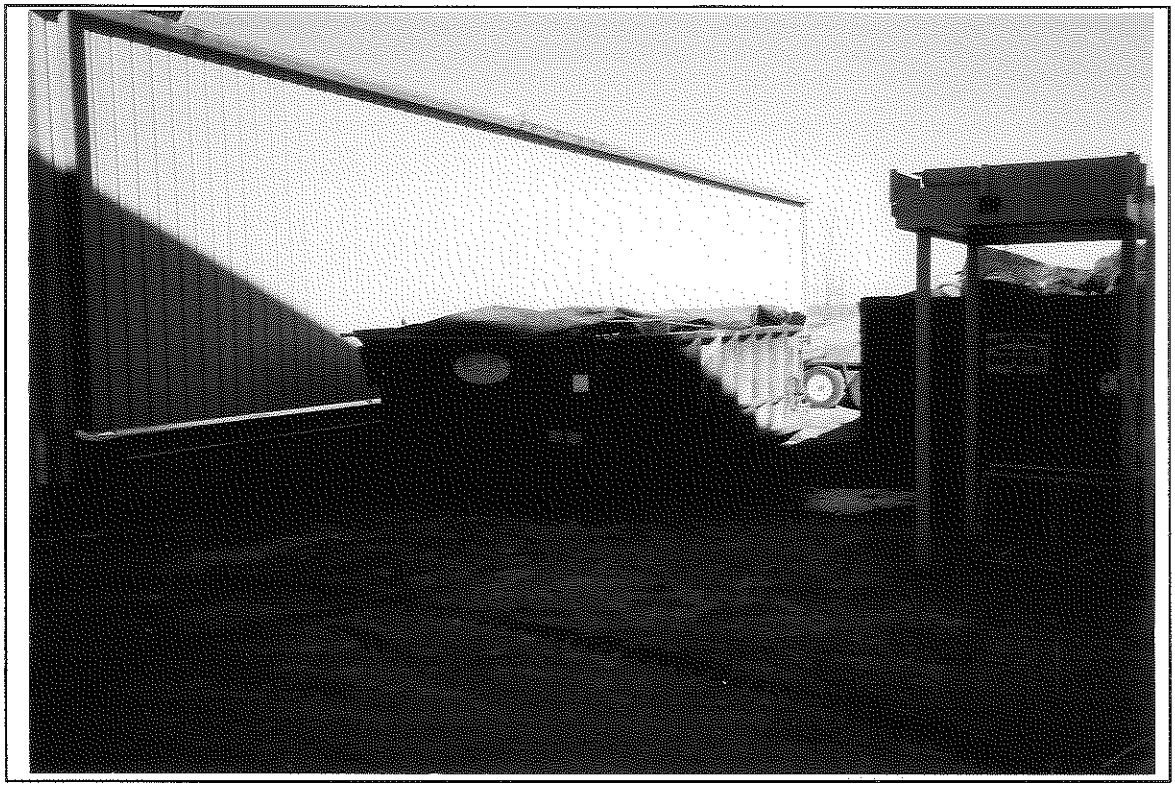
Manitowoc, Wisconsin
12/21/99



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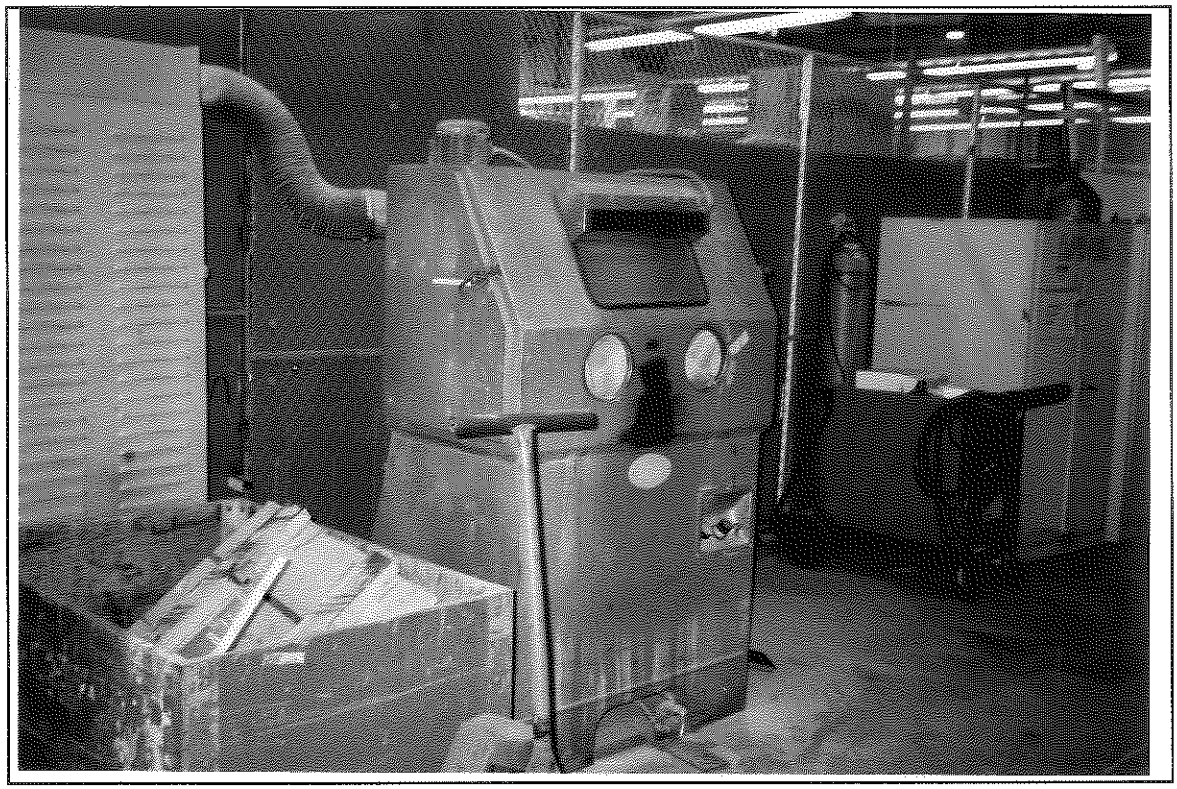
Plating Solution Spill Tank

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99

Plating Solution Spill Containers

Plating Solution Tank Storage

Manitowoc Ice, Inc.
Manitowoc, Wisconsin
12/21/99



Maintenance Shop Sand Blaster Baghouse and Dust Collection

90-Day Container Accumulation Area

:onsin \ DEPARTMENT OF NATURAL RESOURCES

pson, Governor
Secretary
erczak, Regional Director

Northeast Region Headquarters
1125 N. Military Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-492-5800
FAX 920-492-5913
TDD 920-492-5912

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also w receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
MR. ROBERT WALTERS
MANITOWOC ICE INC.
2110 26th ST. BOX 1720
MANITOWOC, WI 54221-1720

4a. Article Number
P 123 924 654

4b. Service Type
☐ Registered
☐ Express Mail
☐ Return Receipt for Merchandise
☒ Certified
☐ Insured
☐ COD

7. Date of Delivery
12-30-99

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)
X

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse sic

CERTIFIED MAIL
urn Receipt Requested

nce, Large Quantity Generator Inspection, Manitowoc
36017560, Manitowoc, Manitowoc County

nt the Large Quantity Generator inspection conducted December 21, 1999, at the above referenced facility. I inspected your facility along with Mr. Walt Francis of the U.S. EPA. Thank you and your staff for your cooperation during the inspection. Present during the inspection were Mr. Carl Stueck, Plant Manager; Mr. Chris Meyer, Plant Engineer; Mr. John Buck, Corporate Safety Manager; Mr. Robert Walters, Manufacturing Production Supervisor.

The Department alleges that at the time of the inspection, a number of violations of chs. NR 600-690, Wisconsin Administrative Code, were detected. The inspection forms completed as part of the inspection are enclosed for your records. At the time of the inspection, we agreed that you would respond, in writing, by January 21, 2000, indicating the steps you have taken to return to compliance.

An outline of the violations detected during the inspection follows below, along with steps you will need to take (or have taken) to come into compliance.

1. S. NR 615.05(4)(a)(10), Wisconsin Administrative Code, Hazardous Waste Management. While being accumulated on site, each container and tank shall be labeled or marked clearly with the words "Hazardous Waste."

   The lugger box containing your F006 wastewater treatment plant sludge was not labeled. You labeled this container during the inspection.

...nt of the
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Form 3811.
...n, Apri...

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ronald W. Kazmierczak, Regional Director

Northeast Region Headquarters
1125 N. Military Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-492-5800
FAX 920-492-5913
TDD 920-492-5912

December 27, 1999

CERTIFIED MAIL
Return Receipt Requested

MR ROBERT WALTERS
MANITOWOC ICE INC
2110 S 26TH STREET BOX 1720
MANITOWOC, WI 54221-1720

Subject: Notice of Noncompliance, Large Quantity Generator Inspection, Manitowoc Ice, Inc., WID980570014, FID436017560, Manitowoc, Manitowoc County

Dear Mr. Walters:

The purpose of this notice is to document the Large Quantity Generator inspection conducted December 21, 1999, at the above referenced facility. I inspected your facility along with Mr. Walt Francis of the U.S. EPA. Thank you and your staff for your cooperation during the inspection. Present during the inspection were Mr. Carl Stueck, Plant Manager; Mr. Chris Meyer, Plant Engineer; Mr. John Buck, Corporate Safety Manager; Mr. Robert Walters, Manufacturing Production Supervisor.

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   The lugger box containing your F006 wastewater treatment plant sludge was not labeled. You labeled this container during the inspection.

2. S. NR 615.05(4)(a)2.e., Wis. Adm. Code. A container holding hazardous waste shall always be closed during storage except when it is necessary to add or remove waste.

   The cover of the lugger box containing your F006 wastewater treatment plant sludge was off at the time of the inspection. You secured the cover during the inspection.

3. S. NR 615.05(4)(a)5., Wis. Adm. Code. The date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container or tank.

   The accumulation start date was not marked on the lugger box containing your F006 wastewater treatment plant sludge. You marked the inspection date as the first day of accumulation on this container during the inspection.

4. S. NR 615.05(4)(c)2., Wis. Adm. Code. A container holding hazardous waste shall always be closed during storage except when it is necessary to add or remove waste.

   A container of broken light tubes was stored open in satellite accumulation. The lid was replaced during the inspection.

5. S. NR 615.05(1)(a), Wis. Adm. Code. All generators of solid waste shall determine if their waste is hazardous using the procedures specified in s. NR 615.06.

   Two waste streams have not been characterized:
   1) grinder swarf generated during de-burring in the sheet metal fabrication area,
   2) bead blasting waste
      a. baghouse dust,
      b. spent blasting grit.

   You will need to determine if these waste streams are hazardous. I would expect that you would at a minimum, analyze these waste streams for the RCRA metals by TCLP, and for any other constituents that might be present.

6. S. NR 615.08(10), Wis. Adm. Code. A generator…who uses a manifest from a consignment state that is not Wisconsin shall send a photocopy of the copy received from the operator of the facility to which the hazardous waste is shipped, to the department within 5 business days of receiving the copy from that facility.

   At the time of the inspection, our records indicated (and you verified) that copies of *out of state* manifests were not being sent to the Department. You agreed to make copies of past manifests and send these in to the PO Box address found on the Wisconsin Uniform Manifest.

7. S. NR 615.09(1)(a), Wis. Adm. Code. Waste Minimization. The generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable...

   At the time of the inspection, you stated that while you have taken waste minimization steps, you do not have a formal Waste Minimization Plan. You will need to compile a plan describing steps you have taken to reduce the volume, and toxicity of your hazardous waste. The following is a note taken from code.

   Note: EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31114, May 28, 1993, states that a generator or TSD should document its program (in writing) and that the program should be signed by the corporate officer who is responsible for ensuring RCRA compliance. While each element may be implemented in different ways depending on the needs and preferences of individual organizations or facilities the general elements that each waste minimization program should include are: A) Top management support; B) Characterization of waste generation and waste management costs; C) Periodic waste minimization assessments; D) A cost allocation system; E) Encourage technology transfer; and F) Program implementation and evaluation.

8. S. NR 615.05(4)(a)2.b, Wis. Adm Code. The generator shall inspect all areas where containers are stored as well as all containers used for storing hazardous waste at least weekly for evidence of leakage, corrosion or deterioration of the containers or discharge confinement structures, such as dikes.

   At the time of the inspection, the last accumulation area inspection was documented as taking place on October 29, 1999. You will need to inspect your accumulation areas **weekly**.

9. NR 615.05(4)(a)2.c, Wis. Adm. Code. The generator shall record the inspections under subpar. b. in an inspection log or summary. These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observation made, and the date and name of any repairs or other remedial actions.

   The inspection log you presented was not accumulation area specific. You should be completing a log for each accumulation area. The log found in Appendix A of your *Hazardous Waste and Spill Response Training Manual* is more appropriate. Also, please consult the code section for more detail.

10. NR 615.05(4)(a)3.a, Wis. Adm. Code. The generator shall inspect all tanks used for storing hazardous waste at least weekly for evidence of leakage, or corrosion or deterioration of the tank or discharge confinement structures, such as dikes.

    At the time of the inspection, you stated that you were not performing inspections of the spill containment tank serving your drum storage building. You will need to begin inspecting the tank serving the accumulation area.

11. NR 615.05(4)(a)3.c. The generator shall record the inspections under subpar. a. in an inspection log or summary. These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

    At the time of the inspection, you were not conducting or logging inspections of the spill containment tank. At the time of the inspection, the tank did not seem to contain liquids but a small amount of what appeared to be a solid foam was seen on the tank bottom (Mr. Stueck verified a foam discharge in the accumulation building which may have collected in the tank).

    Note: At the time of the inspection, we discussed removal of the tank and alteration of the building to provide containment. Please keep me advised as to your decision.

12. NR 630.22(1)(e)1, Wis. Adm. Code. The name, position, address and phone number, office and home, of all persons qualified to act as facility emergency coordinator as described in par. (d), and this list shall be kept up to date. Where more than one person is listed, one shall be designated as the primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. For new facilities, this information shall be supplied to the department at the time an operating license application is submitted.

    At the time of the inspection, your contingency plan did not contain the home address and phone numbers of your emergency coordinators. Mr. Meyer advised that he was updating the contingency plan and should include this information.

13. S. NR 630.16(4)(a), Wis. Adm. Code. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job.

    In your training plan, you will need to include job titles for each employee trained in hazardous waste management.

14. S. NR 630.16(4)(b), Wis. Adm. Code. A written job description for each position listed under par. (a). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company, location or bargaining unit, but shall include the requisite skill, education or other qualifications, and duties of facility personnel assigned to each position.

    In your training plan, you will need to include written job descriptions.

15. S. NR 615.05(4)(a)2.g, Wis. Adm. Code. Containers holding ignitable or reactive waste shall be located at least 50 feet from the generation site's property line.

    You will need to accumulate your ignitable and reactive waste at least 50 feet from the property line. Please discuss steps you will take to ensure that this is accomplished.

At the time of the inspection, you did not have a copy of chs. NR 600-690, Wisconsin Administrative Code, Hazardous Waste Management. You can purchase a copy by contacting the Department of Administration, Document Sales, PO Box 7840, Madison, WI 53707, 608-266-3358, or Administrative Codes can be found at http://www.legis.state.wi.us/rsb/code/. While the electronic version of chs. NR 600-690 is not an "official" version, the information generally is current.

As noted above, please respond in writing, identifying steps you will take to resolve each of the issues listed in 1. through 12. In the case of a violation that was resolved during the inspection, please provide a statement advising how you will ensure that the violation does not reoccur. I will expect a response by January 21, 2000. Once again, thank you for your attention to these matters.

If you have any questions, please contact me at 920-492-5942.

Sincerely,

Karl P. Roovers
Waste Management Specialist
Solid and Hazardous Waste

Kpr

Enc.

Cc: Len Polczinski/Diane Hammel, NER
WA/3, HWM
Walt Francis, U.S. EPA, Waste, Pesticides and Toxics Division, Enforcement and Compliance Assurance Branch, 77 West Jackson Blvd. (DRE-9J), Chicago, IL 60604-3590

LARGE QUANTITY GENERATOR INSPECTION FORM
HAZARDOUS WASTE MANAGEMENT PROGRAM
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

I. GENERAL INFORMATION

DEPARTMENT INFORMATION

DNR District: NER Inspection date: 12-21-99

DNR Inspector(s) KARL RODUERS
WALT FRANCIS USEPA

GENERATOR INFORMATION EPA ID: WID 980 570 014 FID: 436017560

Corporate/Generator Name: MANITOWOC ICE, INC.

Generator Location:

Street: 2110 26TH ST.

City: MANITOWOC County: MANITOWOC Zip:

Site Personnel Present: BOB WALTERS Title: MFG. PROD SUPERVISOR
CHRIS MEYER PLANT ENGINEER
CARL STYECK PLANT MANAGER
JOHN BUCK CORP. SAFETY MGR.

Generator Mailing Address:

Street: PO BOX 1720

City: MANITOWOC State: WI Zip: 54221-172

Phone: 920-683-7803

Operator: Title:

Phone:

Legal Owner: MANITOWOC CO. INC. Title:

Street: PO BOX 66

City: MANITOWOC State: WI Zip: 54221-0066

Phone: 920-683-5191

Company Product/Main Process: MANUFACTURES COMMERCIAL ICE MACHINES.

II. SUMMARY TABLE

	Waste Type	Generation Rate/Month	Hazardous Waste Code	LDR Status+	Exceeds Treatment Standards Yes/No	Waste Handling*
1)	D001 - AEROSOL CANS	10	D001	6	Y	HYDROITE
2)	D002 HITAC AND	6090	D002	6.	Y	US FILTER
3)	D011 WASTE SOLDER	100	D011	6.	Y	HERITAGE
4)	F005 SPENT SOLVENT	30	F005	1.	Y	P.C.I.
5)	F006 WWTP SLUDGE	10,000	F006	6	Y.	SUPERIOR
6)	F006 FILTERS	200	F006	6	Y.	HERITAGE
7)	F007 FILTERS	20	F007	6	Y.	HERITAGE
8)						

Attach waste profile, analysis, MSDS's, or other information to indicate how the facility has complied with NR 615.06, Hazardous Waste Determination, for each waste stream.

+LDR Status - use the following codes:

1. F001-F005 Solvents (NR 675.11)
2. F020-F023, F026-F028, Dioxins (NR 675.12)
3. California list (NR 675.13)
4. First 3rd (NR 675.14)
5. Second 3rd (NR 675.15)
6. Third 3rd (NR 675.16)

**Waste handling - Indicate if the waste is handled on-site or provide name of off-site facility.*

III. NOTIFICATION: NR 615.07

A. Has the generator submitted a notification form to the Department and obtained an identification number? (Yes) No

B. 1. Has the generator changed its ownership or added new hazardous waste activities? Yes (No)

2. Has a subsequent notification form been completed? Yes No (NA)

C. 1. Has the generator changed its (corporate name) (no change in ownership, mailing address and/or waste codes)? (Yes) No

2. Has a letter to DNR and EPA or a subsequent notification form been completed? (Yes) No NA

Comments: _____

IV. WASTE STREAM INFORMATION

A. **Waste Determination NR 605.12, NR 615.06, NR 675**

1. Have all wastes been correctly identified, and if necessary, tested to obtain enough information to treat, store or dispose of the waste properly. (NR 675) Yes (No)

If no, list those not identified correctly below:

Note: The inspector should determine if the generator has made a hazardous waste determination on all solid waste generated, including compliance with the TCLP requirements of NR 675.07 and NR 605.08(5)

Waste Type	Assigned Classification	Correct Classification
GRINDING DUST	None	
SANDBLASTING	WASTE None	

2. Are records of test results, waste analyses, or other determinations retained on site for at least 3 years from the date waste last sent to a TSD facility? Yes (No)

3. Have waste samples been analyzed by a laboratory certified or registered under Chapter NR 149, Wis. Adm. Code for all analyses performed? NR 605.12(1) (Yes) No

4. Have both the listed and characteristic waste code been assigned where a listed waste exhibits a characteristic? NR 675.09 (Yes) No NA

5. Has multi-source leachate been assigned the F039 waste code?* NR 605.09(2) Yes No (NA)

   **Leachate derived exclusively from F020-F023 and/or F026-F028 dioxin wastes retains the individual waste codes.*

   If yes, was single-source leachate combined to form multi-source leachate? Yes No (NA)

6. If any process has changed that affected solid waste characteristics, has the generator made a new hazardous waste determination? NR 615.06(4) Yes No (NA)

Comments: _____

B. **Treatability Group/Treatment Standard Identification**

1. F001-F005 Spent Solvent Wastes; F020-F023 and F026-F028 Dioxin Wastes; First, Second, and Third 3rd Wastes:

   a. Does the generator correctly determine the appropriate treatability group/treatment standard for each waste? (Yes) No NA

   If available, list each waste code and check correct treatability group.

Waste Code	Subcategory	Wastewater*	Nonwastewater
F005			✓

Subcategory-see NR 675.21, Table Constituent Concentrations in Waste Extract, or NR 675.22, Tables 2 and 3 Technology-Based Standards

**Wastewater-less than 1% TOC by weight and less than 1% total suspended solids (TSS) by weight. NR 600.03(237m)*

b. Do the assigned treatment standards for listed wastes cover constituents that may cause the waste to exhibit any characteristics? NR 675.09(2) — Yes (Yes) No NA

c. Does the generator specify alternative treatment standards for lab packs? — Yes (No) NA

If yes, do lab packs only contain the following wastes? NR 675.22(4)(b)

___ Organometallics: NR 675 Appendix III

___ Organics: NR 675 Appendix IV

d. Does the generator specify alternative treatment standards for F039 multi-source leachate? — Yes No (NA)

2. California List Wastes: Has the generator correctly identified the treatability group and treatment standard/prohibition level for the following wastes? (NR 675.22(1)(a) and (b)

a. Liquid hazardous wastes containing PCBs - ≥50 ppm — Yes No (NA)

If yes, check the appropriate treatability group:

_____ 50 to 500 ppm PCBs _____ ≥500 ppm PCBs

b. Listed or characteristic wastes containing ≥1,000 mg/l (liquids) or mg/kg (non-liquids) HOCs, which are not listed or characterized by the HOC content. — Yes No (NA)

If yes, check the appropriate treatability group:

_____ Dilute HOC wastewater (1,000 mg/l to 10,000 mg/l HOCs)
_____ All other HOC's greater than or equal to the prohibition level of 1,000 mg/l (liquids) or mg/kg (non-liquids)

c. Liquid hazardous wastes that exhibit a characteristic and also contain ≥134 mg/l nickel and/or ≥130 mg/l thallium. — Yes No (NA)

3. Treatment standards expressed as required technologies: Has the generator specified an alternative method to that required in NR 675.22? — Yes (No) NA

If yes, list the waste code, the technology specified in NR 675.22, the alternative method, and documentation of approval. NR 675.22(2)

Waste Code	Required Technology	Alternative Method	Approval

4. Does the generator mix restricted wastes with different treatment standards for a constituent of concern? Yes No

   If yes, did the generator select the most stringent treatment standards? (NR 675.21(2) and NR 675.23(2)) Yes No NA

Comments: MIX F LISTED & IG. SOLVENT & SHIP AS F001

C. **Waste Analysis**

1. Does the generator determine whether restricted wastes exceed treatment standards/prohibition levels at the point of generation? NR 675.07(1) Yes No

2. If the answer to question 1 is no, does the generator ship all restricted wastes as not meeting treatment standards? If yes, go to question 4. Yes No NA

3. Which of the following analytical methods does the generator employ? Under each method, list the specific wastes and pertinent documentation. NR 675.07

   a. Knowledge of waste: Yes No NA

   b. TCLP: Are wastes with treatment standards specified in NR 675.21 and 40 CFR 268.41 analyzed using TCLP? BDAT = stabilization/immobilization technology. Yes No NA

   c. Total constituent analysis: Are wastes with treatment standards specified in NR 675.23 analyzed using total constituent analysis? (BDAT = destruction/removal technology) Yes No NA

   d. PFLT*: Was PFLT used to determine if California List constituents were contained in liquid hazardous waste? Yes No NA

   *PFLT = Paint filter liquids Test [Test Method 9095, EPA Publication No. SW-846]

4. Dilution Prohibition NR 675.06:

a. Does the generator mix prohibited wastes with different treatment standards? Yes No

List the wastes PARTS WASHING & PARTS WASHER 4240

Are the wastes amenable to the same type of treatment? Yes No NA

b. Does the generator dilute prohibited wastes to meet the treatment standard criteria, or render them nonhazardous? Yes No

If no, go to c.

Check appropriate category:

__ Dilutes to meet treatment standards
__ Dilutes to render waste nonhazardous

Do the wastes fall into the following categories? (Check if appropriate.)

__ Managed in treatment systems regulated under the Chapter 147, Wis. Stats.
__ Nontoxic* characteristic wastes
__ Treatment standard specified in NR 675.21 or NR 675.23

**Nontoxic = D001 (except high TOC nonwastewaters), D002, and DOO3 (except cyanides and sulfides)*

If the wastes do not fall into the above categories, briefly describe the conditions under which they were diluted.

_____

c. Based on an assessment of points a and b, and any other relevant circumstances, does the generator dilute prohibited wastes as a substitute for adequate treatment? NR 675.06 Yes No

5. F039 Multi-source leachate: Has the generator run an initial analysis for all constituents of concern in NR 675.21 and NR 675.23? Yes No NA

Comments: _____

V. **ON-SITE MANAGEMENT**

A. If the generator treats characteristic wastes in systems regulated under Chapter 147, Wis. Stats., have the following been documented: the determination of restriction, how restricted wastes are managed, and why wastes discharged pursuant to an WPDES permit are not prohibited (if applicable)? Yes No NA

B. If the generator treats characteristic wastes in RCRA exempt units to render them nonhazardous, are the wastes managed as restricted until NR 675 treatment standards are met?* NR 675.09(4) — Yes No NA

**This applies to both concentration based treatment standards specified in NR 675.21 and NR 675.23, and to some NR 675.22 required methods which result in treatment below the characteristic level. See Appendix D of the U.S. EPA land disposal restrictions package. (Third 3rd)*

C. **Treatment Using NR 630 Exempt Units or Processes**

1. Are restricted wastes treated in NR 630 exempt units (i.e., boilers, furnaces, distillation units, wastewater treatment tanks, elementary neutralization, etc.)? — Yes No

If no, go to section VI.

Waste Type	Waste Code	Type of Treatment	Treatment Units and Process

2. Are treatment residuals generated from these units? — Yes No NA

3. Are residuals further treated, stored for greater than 90 days, or disposed on site? — Yes No NA

If yes, the generator is also is a TSD

Comments: _____

VI. **OFF-SITE MANAGEMENT AND MANIFEST REQUIREMENTS**

A. **Manifest Requirements: NR 615.08, 615.09, 615.11(2), 615.12 & 615.13**

1. Does the generator initiate a uniform manifest form with all off-site shipments of hazardous waste? NR 615.08(1) — Yes No

2. Are copies of all manifests for the past 3 years retained by the generator and available for review? NR 615.08(7) — Yes No

3. Does the manifest specify a designated facility which is permitted, licensed, or exempt from permitting or licensing and approved to take the waste? NR 615.08(3) — Yes No

4. Are procedures for exception reporting followed properly, if an exception has occurred? NR 615.11(2) — Yes No N/A

5. Does the generator properly route manifest copies to the Department and the consignment state (if waste was shipped out of state)? NR 615.08(6), (9) & (10) — Yes No Copy 3-5

6. Are the manifests properly completed? NR 615.08(8)(a)-(1) — Yes No

7. If verifiable, is waste packaged marked and labeled in accordance with DOT regulations concerning hazardous materials? NR 615.08(8)(f), NR 615.09(1) and (2) — Yes No NA

8. Does the generator offer the initial transporter of the hazardous waste the appropriate placards required by DOT regulations? NR 615.09(3) — Yes No

Comments: _____

B. **Off-Site Management: Waste Exceeds Treatment Standards**

1. Does the generator ship any waste that exceeds treatment standards/prohibition levels to an off-site treatment or storage facility? Yes No

   If no, go to C.

2. Does the generator provide a notification to the treatment or storage facility with each waste shipment? NR 675.07(1)(1) Yes No

3. If the generator specifies alternative treatment standards for lab packs, is the certification required in NR 675.07(1)(j) or (k) included with the notification for each shipment? Yes No NA

C. **Off-Site Management: Waste Meets Treatment Standards**

1. Does the generator ship waste that meets treatment standards/prohibition levels to an off-site disposal facility? Yes No

   If no, go to D.

2. Does the generator provide a notification and a certification to the disposal facility with each waste shipment? NR 675.07(1)(b) Yes No NA

3. Are characteristic wastes which have been rendered nonhazardous (in a RCRA exempt unit) shipped to a Subtitle D facility? Yes No NA

D. **Records Retention:**

1. Does the generator retain on site copies of all LDR notifications, certification, and other relevant documents for a period of 5 years? NR 675.07(1)(e) Yes No

2. Do LDR documents reflect proper management of wastes previously covered under expired national capacity variances, case-by-case extensions and the soft hammer provisions? Yes No NA

   Note: See summary table on page 2, (treatment standards column).

VII. **ANNUAL REPORTING** NR 615.11(1)

A. Have Annual reports covering generator activities during the previous calendar years been submitted? Yes No

Comments: _____

VIII. CONTINGENCY PLAN AND SAFETY REQUIREMENTS NR 615.05(4)(a)5 and NR 630.22

A. Does the generator have a written contingency plan addressing potential discharge of hazardous waste or hazardous waste constituents to air, land, groundwater, or surface water? NR 630.22(1)(a) — Yes No

Note: If the answer is no, go to IX.

B. Is the contingency plan and all revisions kept by the generator and have they been filed with the Department and been sent to all local police and fire departments, hospitals and emergency response teams who may be called to provide emergency services? NR 630.22(1)(b) — Yes No

C. Does the plan identify an Emergency Coordinator (including name, position, home address, home and business phone) who is present at all times when the generator is in operation, and present or on call when the generator is not in operation and available to respond to an emergency by reaching the site in a short period of time? NR 630.22(1)(d) and NR 630.22(1)(e)1 — Yes No DOES NOT INCLUDE HOME ADDRESS.

D. Does the Emergency Coordinator have the authority and training necessary in the event of an emergency? NR 630.22(1)(d) — Yes No

E. Does the plan contain the following:

1. A description of the site layout, types of waste handled their associated hazards, places where site personnel normally work, and entrances to and roads inside the site? NR 630.22(1)(e)2 — Yes No

2. An evacuation plan for the site personnel, including signal(s) to be used to begin evacuation, evacuation roads, and alternative routes? NR 630.22(1)(e)3 — Yes No

3. Procedures for emergency shutdown of operations, and the actions personnel must take to comply with NR 630.22(1)(a) in response to an emergency including, as appropriate, procedures to:

   a) Activate internal alarms or communication systems to notify all personnel of an imminent or actual emergency situation, where applicable? NR 630.22(2)(a)1. — Yes No NA

   b) Telephone the Division of Emergency Government at 608/266-3232 and comply with the requirements of s. 144.76, Stats., and Chapter NR 158, Wis. Adm. Code? NR 630.22(2)(a)2 — Yes No NA

   c) Immediately identify the character, source, amount, and areal extent of any discharged materials? NR 630.22(2)(a)3 — Yes No NA

d) Assess possible hazards to human health or the environment that may result from discharge, fire, or explosion? NR 630.22(2)(a)4 — Yes No NA

e) Immediately notify appropriate local authorities, if an assessment indicates that a discharge, fire, or explosion could threaten human health or the environment outside the site, and that evacuation of local areas may be advisable? NR 630.22(2)(a)5. — Yes No NA

f) Take all reasonable measures necessary to ensure that fires, explosions, and discharges do not occur, reoccur, or spread to other hazardous waste at the site? NR 630.22(2)(a)6 — Yes No NA

g) Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, where appropriate, if the generator stops operation in response to a fire, explosion, or discharge? NR 630.22(2)(a)7 — Yes No NA

h) Provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a discharge, fire, or explosion at the facility, immediately after an emergency? NR 630.22(2)(a)8 — Yes No NA

i) Ensure that, in the affected areas of the site, no waste that may be incompatible with the discharged materials is treated, stored, or disposed of until cleanup procedures are completed; and all emergency equipment listed in the contingency plan is clean and fit for its intended use before operations are resumed? NR 630.22(2)(a)9 — Yes No

j) Procedures to be used to notify local police and fire departments, hospitals and emergency response teams of a discharge of hazardous waste or a fire or explosion at the site? NR 630.22(1)(e)5 — Yes No

k) Notify the Department and appropriate local authorities before operations are resumed? NR 630.22(2)(b) — Yes No

l) An up-to-date list of all emergency equipment at the site, including the location, physical description and a brief outline of its capabilities for each item? NR 630.22(1)(e)6 — Yes No

F. Does the contingency plan need to be amended due to changes? NR 630.22(1)(c)1-5 — Yes No

Note: The inspector shall ensure that the plan is site specific, that there are emergency coordinators assigned for all shifts, and that all personnel are trained in evacuation procedures.

Comments: NEED TO INCLUDE HOME ADDRESSES & PHONE # FOR EMERG. COORD..

IX. **PERSONNEL TRAINING/RECORDS: NR 615.05(4)(a)5 & 630.16**

A. Does the generator have a program of classroom instruction or on-the-job training for personnel in hazardous waste management procedures? NR 630.16(1) — Yes / No

If the answer is no, then a training program must be developed; go to X.

B. Does this program include training of personnel in Contingency Plan implementation? NR 630.16(1)(a) — Yes / No

C. Do personnel take part in an annual review of initial training? NR 630.16(3) — Yes / No

D. Are records of personnel training maintained by the generator? NR 630.16(4) — Yes / No

If the answer is no, then these records must be developed and maintained by the generator; go to X.

E. Which of the following items are included in the personnel training records? NR 630.16(4)(a)-(d)

1. Job titles and the name of the employee filling each job? No — Yes / No
2. Job descriptions? — Yes / No
3. Description of training required for each position? — Yes / No
4. Written documentation that training or job experience has been given and completed? — Yes / No

F. Are training records of current personnel kept until closure? Training records of former employees must be kept for at least 3 years from the date the employee last worked at the site. NR 630.16(5) — Yes / No

Comments: NEED JOB TITLES + DESCRIPTIONS.

X. **PREPAREDNES AND PREVENTION: NR 615.05(4)(a)5 and NR 630.21**

A. Does the generator have the following equipment, as applicable for the type of waste managed? NR 630.21(2)

1. Internal communication systems? — Yes / No
2. A device to summon emergency assistance, such as a telephone or a 2-way radio? — Yes / No / NA
3. Portable fire extinguishes? — Yes / No
4. Fire control equipment, including special extinguishing equipment and extinguishing agents? — Yes / No / NA
5. Spill control equipment? — Yes / No
6. Decontamination equipment? — Yes / No

B. Is all emergency equipment immediately accessible to persons handling the wastes? — Yes / No

C. Is all of the equipment mentioned in #1 tested and maintained as required to assure its proper operation in an emergency? — Yes / No

D. Is adequate aisle space provided throughout the hazardous waste site to allow unobstructed movement of personnel and all emergency equipment mentioned in #1 above? NR 630.21(5) — Yes No

E. Has the generator made service arrangements with the following groups appropriate for the type of waste handled at the facility and their potential need for the services?

1. Familiarized police, fire dept. and emergency response team with facility layout, properties of hazardous waste hazardous waste handled, and associated hazards. NR 630.21(6)(a) — Yes No

2. Where more than one police and fire dept. may respond to an emergency, designated primary emergency authority. NR 630.21(6)(b) — Yes No

3. Made agreements with state emergency response teams, emergency response contractors and equipment suppliers. NR 630.21(6)(c) — Yes No

4. Familiarized local hospital with properties of hazardous waste handled at the facility and the types of illness or injury that could result from exposure. NR 630.21(6)(d) — Yes No

Comments: _____

XI. **OTHER REQUIREMENTS**

A. Does the generator have spill containment tanks? — Yes No

If the answer is yes, then complete the appropriate attachment.

B. Does the generator combine absorbent material with waste generated on site? — Yes No

If the answer is yes; complete the appropriate attachment.

XII. **90-DAY CONTAINER ACCUMULATION: NR 615.05(4)(a) & 615.09(2)(a)**

NOTE: Containers and tanks are the only means allowed to store large quantities of hazardous waste and be eligible for the 90-day exemption. Any other means of storage, such as waste piles, require an interim or operating storage license/variance. (See the definitions of container, tank and pile in NR 600.03). If waste is stored in tanks, complete attachment for tanks.

A. Does this generator accumulate hazardous waste in containers? — Yes No

If no, skip this section.
If yes, continue below.

B. Are the containers marked with the date on which hazardous waste was first placed in the container for accumulation? NR 615.05(4)(a)4 — Yes No

C. Are containers marked with the words "Hazardous Waste" before placing them in an accumulation area or on-site storage area? NR 615.09(2)(a) — Yes No

D. Is the hazardous waste removed from the site before the end the 90-day accumulation period or treated, stored or disposed of in an approved on-site hazardous waste facility or on-site recycling facility? NR 615.05(4)(a)1.a. or b. — Yes No

E. Are all the containers which are used to store or treat hazardous waste in good condition? 615.05(4)(a)2.d. — Yes No

F. Are containers made of or lined with materials which are compatible with the wastes in them? NR 615.05(4)(a)2.j. — Yes No

G. Are containers stored closed, except when it is necessary to add or remove waste? NR 615.05(4)(a)2.e. — Yes No 20 cu yd Box open

H. Are containers opened, handled and stored in such as way as to prevent leaks or ruptures? 615.05(4)(a)2.f — Yes No

I. Are containers inspected weekly for leaks and defects? NR 615.05(4)(a)2.b — Yes No 10-29-9? last

J. Are the weekly inspections recorded into an inspection log or summary, which includes the date and the time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions? NR 615.05(4)(a)2.c. — Yes No

K. Are records kept for at least 3 years from date of inspection? NR 615.05(4)(a)2.c. — Yes No

L. If the generator stores ignitable or reactive waste, are the containers at least 50 feet (15 meters from the property line? NR 615.05(4)(a)2.g. Will vary — Yes No NA

M. Are containers of incompatible waste separated or protected from each other by physical barriers such as a berm, dike, wall or other device? NR 615.05(4)(a)2.h. — Yes No NA

N. Is hazardous waste placed in an unwashed container that previously held an incompatible waste or material? NR 615.05(4)(a)2.i. If yes, see NR 630.17(2) — Yes No NA

O. Is the container made or lined with materials that are compatible with the hazardous waste to be stored? NR 615.05(4)(a)2.j. — Yes No NA

Comments: _____

XIII. SATELLITE ACCUMULATION NR 615.05(4)(c)

A. Does the generator accumulate waste at or near the generation point? — Yes No

If no, skip this section.
If yes, continue below.

1. Is the container in good condition? NR 615.05(4)(c)1. — Yes No

2. Is the container always closed except when it is necessary to add or remove waste? NR 615.05(4)(c)2. Yes No — BROKEN LIGHT TUBES

3. Is the container lined or compatible with the waste being accumulated? NR 615.05(4)(c)4. Yes No

4. Is the container marked with words "Hazardous Waste" or with other words that correctly identify the contents of the container? NR 615.05(4)(c)5. Yes No

5. Have 55 gallons or more of hazardous waste accumulated at or near the generation point? NR 615.05(4)(c)6. Yes No NA

6. Has one quart or more of acutely hazardous waste listed in section NR 605.09(2)(a), Table II, or (3)(b), Table IV, accumulated at or near the generation point? NR 615.05(4)(c)6. Yes No NA

If the answer to either e or f is yes, then the facility must comply with applicable generator requirements of NR 615.05(4)(a) for this waste (90-day accumulation).

XIV. WASTE MINIMIZATION

Section NR 615.08(8)(k) requires the generator to certify on the hazardous waste manifest that he/she has a program in place to reduce the volume and toxicity of waste generated to the degree economically practicable.

A. Does the generator have a waste minimization/pollution prevention plan or other written documentation of their program? Yes No

If yes, can the generator document that a program is being implemented? Yes No NA

If no, can the generator provide other evidence to justify their waste minimization certification? Yes No NA

B. Look for visual evidence that there is a waste minimization program in place. Make appropriate suggestions for their consideration and provide them with Department literature and information sources.

Comments _____

XV. STATUS EVALUATION

A. Classification Based on District Verification: LQG

Note: If the inspection-verified classification is different from the current notification status, a status change form (Form 4430-12) should be completed and attached.

Signature: _____ Date: 12-27-99

This generator is also subject to regulation as a:

_____ Treatment Facility (specify container, tank, other)

_____ Exempt Treatment Facility (specify)

_____ Transfer Facility

_____ Storage Facility (specify, container, tank)

_____ Exempt Storage Facility (specify)

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

Date: July 7, 1992 File Ref: 4430

To: File

From: Karl Rovers, GRB

Subject: Complaint Inspection, Manitowoc Equipment Works, WID980570014, Manitowoc, Manitowoc County

On April 2, 1992, 9:30 a.m., Warden Aasen and I investigated the above facility in response to complaints Aasen had received. Complaints as follows: acid fumes coming out of floor drains, facility had collection area under plaiting tanks corroded away causing soil contamination, facility did not report spillage when damaged floor was detected.

Contact was made with: Ken Engman, Wastewater Treatment Plant Operator; Bob LaPrise, Manufacturing Manager; Terry Knight, Corporate Safety and Environmental Affairs Coordinator.

The following was learned about the complaints.

1. Many of the floor drains of area companies had backed up lately (as reported by Hien Plumbing).

2. The concrete floor under the plaiting tanks had degraded. A spill was reported to Bruce Urben and an assessment has been conducted. The floor was replaced using an FRP liner.

A Large Quantity Generator inspection was conducted. No violations were left unresolved at the time of the inspection and a NON was not issued.

kpr

cc: Len Polczinski, LMD
SW/3, HWM

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Green Bay Area Headquarters
200 North Jefferson Street
Suite 511
Green Bay, WI 54301-5158
TELEPHONE # (414)448-5151
TELEFAX # (414)448-5129

Carroll D. Besadny
Secretary

RECEIVED JUL 0 0 1993
WMD RCRA
RECORD CENTER Compliance

July 6, 1992

File Ref: 4430

Mr. Ken Engman
Manitowoc Equipment Works
2110 South 26th Street
Manitowoc, WI 54221-1720

Subject: Large Quantity Generator Inspection, Manitowoc Equipment Works, WID980570014, Manitowoc, Manitowoc County

Dear Mr. Engman:

On April 2, 1992, I inspected your facility for compliance with: chs. NR 600-685, Wis. Adm. Code, Hazardous Waste Management; U.S. EPA Land Disposal Restrictions. On June 30, 1992, I conducted a follow-up inspection. Thank you for your cooperation during the inspections.

The Department alleges that the following violations were detected during the April inspection, but were resolved immediately during the inspection.

1. A drum in the accumulation area was not marked with the date of the start of accumulation. NR 615.05(4)(a)4. A yellow placard was applied with the date of accumulation marked.

2. A drum in the satellite accumulation area was stored open, with an open funnel in the bunghole. NR 615.05(4)(c)2. The funnel was removed and the bung replaced.

During the follow-up inspection (6-30-92) no violations were detected. A threaded safety funnel was fitted to the drum in the satellite accumulation area and all drums in the accumulation area were well marked.

This afternoon, you submitted a FAX of up-dates of your training and contingency plans (please submit complete plans when avalible). Be sure to periodically review and up-date these plans as needed.

Enclosed is a copy of the inspection form completed for your facility. If you have any questions, please contact me at (414) 448-5144.

Sincerely,

Karl P. Roovers
Environmental Specialist
Solid and Hazardous Waste

kpr

Enc.

cc: Len Polczinski, LMD
SW/3, HWM
U.S. EPA

RECEIVED
JUL 22 1992
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

LARGE QUANTITY GENERATOR INSPECTION FORM
HAZARDOUS WASTE MANAGEMENT PROGRAM
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

I. GENERAL INFORMATION

DEPARTMENT INFORMATION:

DNR District: LMO Inspection date: 4-2-92

DNR Inspector(s) KARL ROOVERS

Corporate/Generator Name: MANITOWOC EQUIPMENT WORKS

U.S. EPA I.D. #: WID980570014 FID #: 436017560

Generator Location:

Street: 2110 S 26TH STREET

City: MANITOWOC County: MANITOWOC Zip: 54221-1720

Site Personnel Present: KEN ENGMAN Title: W W PLANT OPERATOR
BOB LAPRISE MANF. MGR.

nerator Mailing Address:

Street: P.O. BOX 1720

City: MANITOWOC State: WI Zip: 54221-1720

Phone: 414-683-7868

Operator: — Title: —

Phone: —

Legal Owner: MANITOWOC CO., INC Title: —

Street: 500 S 16TH ST

City: MANITOWOC State: WI Zip: 54221

Phone: 414-683-6585

Company Product/Main Process: ICE MAKING EQUIPMENT

4/92

II. SUMMARY TABLE

Waste Type	Generation Rate/Month	Hazardous Waste Code	LDR Status+	Exceeds Treatment Standards Yes/No	Waste Handling*
1) ACID	26,500	D002	6	Y	CP INORGANICS, ILL. METRO RECOVERY, MN.
2) PARTS WASHING SOLV. TOLUENE MIN. SPTS.	660	F005	1	Y	AVGANIC, WI SAFETY KLEEN, ILL.
3) W.W. TREATMENT SLUDGE	16,000	F006	4	Y	MICH. DISPOSAL, MI.
4) SLUDGE & FILTER PAPER	1,300	F006	4	Y	MICH. DISPOSAL, MI
5) FOAM GUN CLEANER METH. CHLORIDE	650	F002	1	Y	SAFETY KLEEN, ILL. AVGANIC, WI.
6) CYANIDE FILTERS	260	F007	5	Y	MICH DISPOSAL, MI.
7) NICKEL FILTERS	200	D040	6	Y	MICH. DISPOSAL, MI.
8)					

Attach waste profile, analysis, MSDS's, or other information to indicate how the facility has complied with NR 615.06, Hazardous Waste Determination, for each waste stream.

+LDR Status - use the following codes:

1. F001-F005 Solvents (NR 675.10)
2. F020-F023, F026-F028, Dioxins (NR 675.11)
3. California list (NR 675.12)
4. First 3rd (NR 675.13)
5. Second 3rd (NR 675.14
6. Third 3rd (40 CFR 268.12)

**Waste handling - Indicate if the waste is handled on-site or provide name of off-site facility.*

III. NOTIFICATION: NR 615.07

1. Has the generator submitted a notification form to the Department and obtained an identification number? (Yes) No

2. a. Has the generator changed its ownership or added new hazardous waste activities? Yes (No)

   b. Has a subsequent notification form been completed? Yes No (NA)

3. a. Has the generator changed its corporate name (no change in ownership, mailing address and/or waste codes)? Yes (No)

   b. Has a letter to DNR and EPA or a subsequent notification form been completed? Yes No (NA)

Comments: _____

IV. WASTE STREAM INFORMATION

Note: Code citations denoted 40 CFR refer to Title 40 of the Code of Federal Regulations - Protection of the Environment. Parts 260 through 272 contain the administrative rules pertaining to hazardous waste management, which are administered by the U.S. Environmental Protection Agency.

A. Waste Determination NR 605.12, NR 615.06, NR 675

1. Have all wastes been correctly identified, and if necessary, tested to obtain enough information to treat, store or dispose of the waste properly. (40 CFR Part 268) — Yes No

   If no, list those not identified correctly below:

   Note: The inspector should determine if the generator has made a hazardous waste determination on all solid waste generated, including compliance with the TCLP requirements of 40 CFR 261.24.

Waste Type	Assigned Classification	Correct Classification

2. Are records of test results, waste analyses, or other determinations retained on site for at least 3 years from the date waste last sent to a TSD facility? — Yes No

3. Have waste samples been analyzed by a laboratory certified or registered under Chapter NR 149, Wis. Adm. Code for all analyses performed? NR 605.12(1) — Yes No

4. Have both the listed and characteristic waste code been assigned where a listed waste exhibits a characteristic? 40 CFR 268.9(a) — Yes No NA

5. Has multi-source leachate been assigned the F039 waste code?* 40 CFR 261.31 — Yes No NA

   *Leachate derived exclusively from F020-F023 and/or F026-F028 dioxin wastes retains the individual waste codes.

   If yes, was single-source leachate combined to form multi-source leachate? — Yes No NA

6. If any process has changed that affected solid waste characteristics, has the generator made a new hazardous waste determination? NR 615.06(4) — Yes No NA

Comments: _____

B. Treatability Group/Treatment Standard Identification

1. F001-F005 Spent Solvent Wastes; F020-F023 and F026-F028 Dioxin Wastes; First, Second, and Third 3rd Wastes:

Note: Any violations of the Third 3rd LDR regulations must be referred to EPA until these requirements are incorporated into the NR 600 series.

a. Does the generator correctly determine the appropriate treatability group/treatment standard for each waste? Yes No NA

If available, list each waste code and check correct treatability group.

Waste Code	Subcategory	Wastewater*	Nonwastewater
D002			✓
F005			✓
F006			✓
F002			✓
F007			✓
D040			✓

**Less than 1% TOC by weight and less than 1% total suspended solids (TSS) by weight. (40 CFR 268.2(f))*

b. Do the assigned treatment standards for listed wastes cover constituents that may cause the waste to exhibit any characteristics? 40 CFR 268.9(b) Yes No NA

c. Does the generator specify alternative treatment standards for lab packs? Yes No NA

If yes, do lab packs only contain the following wastes? 40 CFR 268.42(c)(2)

__ Organometallics: 40 Part 268, Appendix IV constituents
__ Organics: 40 CFR part 268, Appendix V constituents

d. Does the generator specify alternative treatment standards for F039 multi-source leachate? Yes No NA

2. California List Wastes: Has the generator correctly identified the treatability group and treatment standard/prohibition level for the following wastes? (NR 675.20-24)

a. Liquid hazardous wastes containing PCBs – ≥50 ppm Yes No NA

If yes, check the appropriate treatability group:

_____ 50 to 500 ppm PCBs _____ ≥500 ppm PCBs

b. Listed or characteristic wastes containing ≥1,000 mg/l (liquids) or mg/kg (non-liquids) HOCs, which are not listed or characterized by the HOC content. Yes No NA

If yes, check the appropriate treatability group:

_____ Dilute HOC wastewater (1,000 mg/l to 10,000 mg/l HOCs)

_____ All other HOC's greater than or equal to the prohibition level of 1,000 mg/l (liquids or mg/kg (non-liquids)

c. Liquid hazardous wastes that exhibit a characteristic and also contain ≥134 mg/l nickel and/or ≥130 mg/l thallium. Yes No NA

3. Treatment standards expressed as required technologies: Has the generator specified an alternative method to that required in NR 675.22? Yes No NA

If yes, list the waste code, the technology specified in NR 675.22, the alternative method, and documentation of approval. NR 675.22(2)

Waste Code	Required Technology	Alternative Method	Approval

4. Does the generator mix restricted wastes with different treatment standards for a constituent of concern? Yes No NA

If yes, did the generator select the most stringent treatment standards? (NR 675.21(2) and NR 675.23(2)) Yes No NA

Comments: _____

C. Waste Analysis

1. Does the generator determine whether restricted wastes exceed treatment standards/prohibition levels at the point of generation? NR 675.07(1) Yes No

2. If the answer to question 1 is no, does the generator ship all restricted wastes as not meeting treatment standards? If yes, go to question 4. Yes No NA

3. Which of the following analytical methods does the generator employ? Under each method, list the specific wastes and pertinent documentation. NR 675.07 and 40 CFR 268.7

a. Knowledge of waste: Yes No NA

_____

_____

b. TCLP: Are wastes with treatment standards specified in NR 675.21 and 40 CFR 268.41 analyzed using TCLP? BDAT = stabilization/immobilization technology. Yes No NA

_____

_____

c. Total constituent analysis: Are wastes with treatment standards specified in NR 675.23 and 40 CFR 268.43 analyzed using total constituent analysis? (BDAT = destruction/removal technology) Yes No NA

_____

_____

d. PFLT*: Was PFLT used to determine if California List constituents were contained in liquid hazardous waste? Yes No NA

*PFLT = Paint filter liquids Test [Test Method 9095, EPA Publication No. SW-846]

_____

_____

4. Dilution Prohibition NR 675.06:

a. Does the generator mix prohibited wastes with different treatment standards? Yes No

List the wastes _____

Are the wastes amenable to the same type of treatment? Yes No NA

b. Does the generator dilute prohibited wastes to meet the treatment standard criteria, or render them nonhazardous? Yes No

If no, go to c.

Check appropriate category:

__ Dilutes to meet treatment standards
__ Dilutes to render waste nonhazardous

Do the wastes fall into the following categories? (Check if appropriate.)

__ Managed in treatment systems regulated under the Chapter 147, Wis. Stats.
__ Nontoxic* characteristic wastes
__ Treatment standard specified in NR 275.21 or NR 275.23

**Nontoxic = D001 (except high TOC nonwastewaters), D002, and DOO3 (except cyanides and sulfides)*

If the wastes do not fall into the above categories, briefly describe the conditions under which they were diluted.

_____

c. Based on an assessment of points a and b, and any other relevant circumstances, does the generator dilute prohibited wastes as a substitute for adequate treatment? 40 CFR 268.3(a) Yes No

5. F039 Multi-source leachate: Has the generator run an initial analysis for all constituents of concern in 40 CFR 268.41 and 268.43? Yes No NA

Comments: _____

V. ON-SITE MANAGEMENT

A. If the generator treats characteristic wastes in systems regulated under Chapter 147, Wis. Stats., have the following been documented: the determination of restriction, how restricted wastes are managed, and why wastes discharged pursuant to an WPDES permit are not prohibited (if applicable)? Yes No NA

B. If the generator treats characteristic wastes in RCRA exempt units to render them nonhazardous, are the wastes managed as restricted until 40 CFR 268 treatment standards are met?* 40 CFR 268.9(d) — Yes No (NA)

**This applies to both concentration based treatment standards specified in 40 CFR 268.41 and 268.43, and to some 40 CFR 268.42 required methods which result in treatment below the characteristic level. See Appendix D of the U.S. EPA land disposal restrictions package. (Third 3rd)*

C. **Treatment Using NR 630 Exempt Units or Processes**

1. Are restricted wastes treated in NR 630 exempt units (i.e., boilers, furnaces, distillation units, wastewater treatment tanks, elementary neutralization, etc.)? — Yes (No)

If no, go to section VI.

Waste Type	Waste Code	Type of Treatment	Treatment Units and Process

2. Are treatment residuals generated from these units? — Yes No (NA)

3. Are residuals further treated, stored for greater than 90 days, or disposed on site? — Yes No (NA)

If yes, the generator is also is a TSD

Comments: _____

VI. **OFF-SITE MANAGEMENT AND MANIFEST REQUIREMENTS**

A. **Manifest Requirements: NR 615.08, 615.09, 615.11(2), 615.12 & 615.13**

1. Does the generator initiate a uniform manifest form with all off-site shipments of hazardous waste? NR 615.08(10) — (Yes) No

2. Are copies of all manifests for the past 3 years retained by the generator and available for review? NR 615.08(7) — (Yes) No

3. Does the manifest specify a designated facility which is permitted, licensed, or exempt from permitting or licensing and approved to take the waste? NR 615.08(3) — (Yes) No

4. Are procedures for exception reporting followed properly, if an exception has occurred? NR 615.11(2) — Yes No (N/A)

5. Does the generator properly route manifest copies to the Department and the consignment state (if waste was shipped out of state)? NR 615.08(6), (9) & (10) — (Yes) No

6. Are the manifests properly completed? NR 615.08(8)(a)-(1) — (Yes) No

7. If verifiable, is waste packaged marked and labeled in accordance with DOT regulations concerning hazardous materials? NR 615.08(8)(f), NR 615.09(1) and (3) — Yes No NA

Comments: _____

B. Off-Site Management: Waste Exceeds Treatment Standards

1. Does the generator ship any waste that exceeds treatment standards/prohibition levels to an off-site treatment or storage facility? — Yes No

If no, go to C.

2. Does the generator provide a notification to the treatment or storage facility with each waste shipment? NR 675.07(1)(1) — Yes No

3. If the generator specifies alternative treatment standards for lab packs, is the certification required in 40 CFR 268.7(a)(7) or (8) included with the notification for each shipment? — Yes No NA

Off-Site Management: Waste Meets Treatment Standards

1. Does the generator ship waste that meets treatment standards/prohibition levels to an off-site disposal facility? If no, go to D. — Yes No

2. Does the generator provide a notification and a certification to the disposal facility with each waste shipment? NR 675.07(1)(b) — Yes No

3. Are characteristic wastes which have been rendered nonhazardous (in a RCRA exempt unit) shipped to a Subtitle D facility? — Yes No

D. Records Retention:

1. Does the generator retain on site copies of all LDR notifications, certification, and other relevant documents for a period of 5 years? NR 675.07(1)(e) — Yes No

2. Do LDR documents reflect proper management of wastes previously covered under expired national capacity variances, case-by-case extensions and the soft hammer provisions? — Yes No NA

Note: See summary table on page 2, (treatment standards column).

VII. ANNUAL REPORTING NR 615.11(1)

1. Have Annual reports covering generator activities during the previous calendar years been submitted? (Yes) No

Comments: _____

VIII. CONTINGENCY PLAN AND SAFETY REQUIREMENTS NR 615.05(4)(a)5 and NR 630.22

A. Does the generator have a written contingency plan addressing potential discharge of hazardous waste or hazardous waste constituents to air, land, groundwater, or surface water? (NR 630.22(1)(a) (Yes) No

Note: If the answer is no, go to IX.

B. Is the contingency plan and all revisions kept by the generator and have they been filed with the Department and been sent to all local police and fire departments, hospitals and emergency response teams who may be called to provide emergency services? NR 630.22(1)(b) (Yes) No

C. Does the plan identify an Emergency Coordinator (including name, position, home address, home and business phone)who is present or on call when the generator is not in operation and available to respond to an emergency by reaching the site in a short period of time? NR 630.22(1)(e)1 (Yes) No PLAN LISTS 4. ONE HAS CHANGE

D. Does the Emergency Coordinator have the authority and training necessary in the event of an emergency? NR 630.22(1)(d) (Yes) No

E. Does the plan contain the following:

1. A description of the site layout, types of waste handled and their associated hazards, places where site personnel normally work, and entrances to and roads inside the site? NR 630.22(1)(e)2 (Yes) No

2. An evacuation plan for the site personnel, including signal(s) to be used to begin evacuation, evacuation roads, and alternative routes? (Yes) No

3. Procedures for emergency shutdown of operations, and the actions personnel must take to comply with NR 630.22(1)(a) in response to an emergency including, as appropriate, procedures to:

a) Activate internal alarms or communication systems to notify all personnel of an imminent or actual emergency situation, where applicable? NR 630.22(2)(a)1. (Yes) No NA

b) Telephone the Division of Emergency Government at 608/266-3232 and comply with the requirements of s. 144.76, Stats., and Chapter NR 158, Wis. Adm. Code? NR 630.22(2)(a)2 — Yes No NA

c) Immediately identify the character, source, amount, and areal extent of any discharged materials? NR 630.22(2)(a)3 — Yes No NA

d) Assess possible hazards to human health or the environment that may result from discharge, fire, or explosion? NR 630.22(2)(a)4 — Yes No NA

e) Immediately notify appropriate local authorities, if an assessment indicates that a discharge, fire, or explosion could threaten human health or the environment outside the site, and that evacuation of local areas may be advisable? NR 630.22(2)(a)5. — Yes No NA

f) Take all reasonable measures necessary to ensure that fires, explosions, and discharges do not occur, reoccur, or spread to other hazardous waste at the site? NR 630.22(2)(a)6 — Yes No NA

g) Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, where appropriate, if the generator stops operation in response to a fire, explosion, or discharge? NR 630.22(2)(a)7 — Yes No NA

h) Provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a discharge, fire, or explosion at the facility, immediately after an emergency? NR 630.22(2)(a)8 — Yes No NA

i) Ensure that, in the affected areas of the site, no waste that may be incompatible with the discharged materials is treated, stored, or disposed of until cleanup procedures are completed; and all emergency equipment listed in the contingency plan is clean and fit for its intended use before operations are resumed? — Yes No

j) Procedures to be used to notify local police and fire departments, hospitals and emergency response teams of a discharge of hazardous waste or a fire or explosion at the site? NR 630.22(1)(e)5 — Yes No

k) Notify the Department and appropriate local authorities before operations are resumed? NR 630.22(2)(b) — Yes No

l) An up-to-date list of all emergency equipment at the site, including the location, physical description and a brief outline of its capabilities for each item? NR 630.22(1)(e)6 — Yes No

F. Does the contingency plan need to be amended due to changes? NR 630.22(1)(c)1-5 — Yes No

Note: The inspector shall ensure that the plan is site specific, that there are emergency coordinators assigned for all shifts, and that all personnel are trained in evacuation procedures.

Comments: ONE EMERG. COORD. NAME CHANGE

IX. **Personnel Training/Records: NR 615.05(4)(a)5 & 630.16**

1. Does the generator have a program of classroom instruction or on-the-job training for personnel in hazardous waste management procedures? NR 630.16(1) — Yes No

If the answer is no, then a training program must be developed; go to X.

2. Does this program include training of personnel in Contingency Plan implementation? NR 630.16(1)(a) — Yes No

3. Do personnel take part in an annual review of initial training? NR 630.16(3) — Yes No

4. Are records of personnel training maintained by the generator? NR 630.16(4) — Yes No

If the answer is no, then these records must be developed and maintained by the generator; go to X.

5. Which of the following items are included in the personnel training records? NR 630.16(4)(a)-(d)

   a. Job titles and the name of the employee filling each job? — Yes No

   b. Job descriptions? — Yes No

   c. Description of training required for each position? — Yes No

   d. Written documentation that training or job experience has been given and completed? — Yes No

6. Are training records of current personnel kept until closure? Training records of former employees must be kept for at least 3 years from the date the employee last worked at the site. NR 630.16(5) — Yes No

Comments:

X. **Preparedness and Prevention: NR 630.21**

1. Does the generator have the following equipment, as applicable for the type of waste managed? NR 630.21(2)

   a. Internal communication systems? — Yes No

b. A device to summon emergency assistance, such as a telephone or a 2-way radio? (Yes) No NA

c. Portable fire extinguishes? (Yes) No

d. Fire control equipment, including special extinguishing equipment and extinguishing agents? (Yes) No NA

e. Spill control equipment? (Yes) No

f. Decontamination equipment? (Yes) No

2. Is all emergency equipment immediately accessible to persons handling the wastes? (Yes) No

3. Is all of the equipment mentioned in #1 tested and maintained as required to assure its proper operation in an emergency? (Yes) No

4. Is adequate aisle space provided throughout the hazardous waste site to allow unobstructed movement of personnel and all emergency equipment mentioned in #1 above NR 630.21(5) (Yes) No

Comments: _____

Other Requirements

1. Does the generator have spill containment tanks? (Yes) No

If the answer is yes, then complete the appropriate attachment.

2. Does the generator combine absorbent material with waste generated on site? Yes (No)

If the answer is yes, complete the appropriate attachment.

XII. 90-Day Container Accumulation: NR 615.05(4)(a) & 615.09(2)(a)

NOTE: Containers and tanks are the only means allowed to store large quantities of hazardous waste and be eligible for the 90-day exemption. Any other means of storage, such as waste piles, require an interim or operating storage license/variance. (See the definitions of container, tank and pile in NR 600.03). If waste is stored in tanks, complete attachment for tanks.

1. Does this generator accumulate hazardous waste in containers? (Yes) No

If no, skip this section.
If yes, continue below.

2. Are the containers marked with the date on which hazardous waste was first placed in the container for accumulation? NR 615.05(4)(a)4 ONE DRUM NOT DATED. WILL IN FUTURE Yes (No)

3. Are containers marked with the words "Hazardous Waste" before placing them in an accumulation area or on-site storage area? NR 615.09(2)(a) (Yes) No

4. Is the hazardous waste removed from the site before the end of the 90-day accumulation period or treated, stored or disposed of in an approved on-site hazardous waste facility or on-site recycling facility? NR 615.05(4)(a)1.a. or b. Yes No

5. Are all the containers which are used to store or treat hazardous waste in good condition? 615.05(4)(a)2.d. Yes No

6. Are containers made of or lined with materials which are compatible with the wastes in them? Yes No

7. Are containers stored closed, except when it is necessary to add or remove waste? NR 615.05(4)(a)2.e. Yes No

8. Are containers opened, handled and stored in such as way as to prevent leaks or ruptures? 615.05(4)(a)2.f Yes No

9. Are containers inspected weekly for leaks and defects? NR 615.05(4)(a)2.b Yes No

10. Are the weekly inspections recorded into an inspection log or summary, which includes the date and the time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions? NR 615.05(4)(a)2.c. Yes No

11. Are records kept for at least 3 years from date of inspection? NR 615.05(4)(a)2.c. Yes No

12. If the generator stores ignitable or reactive waste, are the containers at least 50 feet (15 meters from the property line? NR 615.05(4)(a)2.g. Yes No NA

13. Are incompatible wastes stored in separate containers? NR 615.05(4)(a)2.i. Yes No NA

14. Are containers of incompatible waste separated or protected from each other by physical barriers such as a berm, dike, wall or sufficient distance? NR 615.05(4)(a)2.h. Yes No NA

15. Are empty containers washed prior to adding incompatible waste? Yes No NA

Comments: _____

XIII. Satellite Accumulation NR 615.05(4)(c)

1. Does the generator accumulate waste at or near the generation point? Yes No

If no, skip this section.
If yes, continue below.

a. Is the container in good condition? NR 615.05(4)(c)1. Yes No

b. Is the container always closed except when it is necessary to add or remove waste? NR 615.05(4)(c)2. BUNG REPLACED DURING INSPECTION. WILL IN FUTURE. — Yes (No)

c. Is the container lined or compatible with the waste being accumulated? NR 615.05(4)(c)4. — (Yes) No

d. Is the container marked with words "Hazardous Waste" or with other words that correctly identify the contents of the container? NR 615.05(4)(c)5. — (Yes) No

e. Have 55 gallons or more of hazardous waste accumulated at or near the generation point? NR 615.05(4)(c)6. — Yes (No) NA

f. Has one quart or more of acutely hazardous waste listed in section NR 605.09(2)(a), Table II, or (3)(b), Table IV, accumulated at or near the generation point? NR 615.05(4)(c)6. — Yes No (NA)

If the answer to either e or f is yes, then the facility must comply with applicable generator requirements of NR 615.05(4)(a) for this waste (90-day accumulation).

IX. STATUS EVALUATION

Classification Based on District Verification: LQG

Note: If the inspection-verified classification is different from the current notification status, a status change form (Form 4430-12) should be completed and attached.

Signature: [signature] Date: 6-18-92

This generator is also subject to regulation as a:

_____ Treatment Facility (specify container, tank, other) _____

_____ Exempt Treatment Facility (specify) _____

_____ Transfer Facility

_____ Storage Facility (specify, container, tank) _____

_____ Exempt Storage Facility (specify) _____

_____ Disposal Facility

_____ Transporter

LMD
DNR District

WID980570014
EPA ID Number

Attachment 11
Hazardous Waste Facility Inspection
Form Attachment on
Accumulation in Underground Spill Containment Tanks
(NR 181.21(6), Wis. Adm. Code)

A. General Information:

Facility Name: MANITOWOC EQUIPMENT WORKS

Facility Location: 2110 S 26TH ST.

City/Town/County: MANITOWOC

DNR District Inspector: KARL ROOVERS Inspection Date: 4-2-92

B. Requirements:

1. Does the generator have underground tanks?

[✓] Yes [ ] No _____ (Comments or Clarification)

2. If the answer to #1, above, is yes, are underground tanks used for spill or leak containment?

[✓] Yes [ ] No _____ (Comments or Clarification)

Note: A generator may accumulate hazardous waste on-site in underground tanks used for spill or leak containment, without a storage license, provided that the generator meets the following requirements:

If the answer to #2, above, is yes, then answer questions #3 through #14, below.

3. Is the underground tank an integral part of a spill containment system?

[✓] Yes [ ] No _____ (Comments or Clarification)

4. Is the storage capacity of the tank less than 1000 gallons?

[✓] Yes [ ] No _____ (Comments or Clarification)

5. Is the tank empty unless a spill or leak occurs?

[✓] Yes [ ] No _____ (Comments or Clarification)

Revised November 1985

6. Are all hazardous wastes which accumulate in the tank as a result of a spill or leak removed within 7 days?

   [✓] Yes [ ] No _____ (Comments or Clarification)

7. Are underground spill containment tanks inspected weekly for leaks and defects?

   [✓] Yes [ ] No _____ (Comments or Clarification)

8. Are required daily inspections made for:

   a. Overfilling control equipment, as appropriate, such as waste feed cut-off systems and bypass systems, to insure it is in good working order?

      [ ] Yes [ ] No N/A (Comments or Clarification)

   b. Data gathered from monitoring equipment to ensure operation is according to tank design?

      [ ] Yes [ ] No N/A (Comments or Clarification)

9. Are the inspections mentioned in #7 and #8, above, logged into the facility inspection log, which includes the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions?

   [✓] Yes [ ] No _____ (Comments or Clarification)

10. Are incompatible wastes stored in separate tanks?

    [ ] Yes [ ] No N/A (Comments or Clarification)

11. Are <u>empty</u> tanks washed prior to adding incompatible wastes?

    [ ] Yes [ ] No N/A (Comments or Clarification)

12. Are tanks used to store only those wastes which will not cause corrosion, rupture, leakage or premature failure of the tank?

    [ ] Yes [ ] No N/A (Comments or Clarification)

13. Are reactive or ignitable wastes in tanks protected from conditions which may cause reaction or ignition, or is the waste treated, rendered or mixed so that it is no longer reactive or ignitable?

[ ] [ ] N/A
Yes No (Comments or Clarification)

14. Do continuous feed systems have a waste feed cutoff or bypass system to a standby tank?

[ ] [ ] N/A
Yes No (Comments or Clarification)

ENVOTECH®

MANAGEMENT SERVICES, INC.

GENERATOR WASTE CHARACTERIZATION REPORT

T# 009956

An original report form must be completed for each separate waste stream. **Do not submit copies.**

Is this a ☒ New Waste for Approval?

or ☐ Waste Stream Reapproval? Previous Approval # _____

Complete all sections of this report, attach laboratory reports required and send with a **REPRESENTATIVE ONE-PINT SAMPLE** of this waste to the facility. Waste loads will not be scheduled for shipment until 1.) the facility has issued an approval letter and 2.) the customer has signed and returned the quotation agreement.

SECTION I - TREATMENT, DISPOSAL & RECOVERY NEEDS

This waste approval request is being submitted for (check all that apply):

☒ TREATMENT
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, MI 48111
ATTN: Technical Review

Hazardous and non-hazardous waste stabilization of solids, semi-solids slurries and liquids. Inorganic waste treatment to BDAT standards.
Customer Service: (313) 699-7120

☐ RECOVERY/FUEL BLENDING
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174
ATTN: Technical Review

Hazardous and non-hazardous waste solvent recovery, recycling, and fuel blending. Containerized and bulk waste handling. Technology is BDAT for many organic wastes. Customer Service: (313) 326-3100

☐ LANDFILL
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, MI 48111
ATTN: Technical Review

Secure hazardous and non-hazardous waste landfill services. Containerized and bulk waste management.
Customer Service: (313) 697-7830

SECTION II - GENERATOR FACILITY INFORMATION

Generator Name Manitowoc Equipment Works
Plant Name _____
Address 2110 South 26th St., P.O. Box 1720
Manitowoc State WI Zip 54221-1720
Contact Ken Engman
Alternate Kent Aubry

S.I.C. Codes* _____
US EPA ID #* WID980570014

Telephone (414) 683-7868 Fax (414) 683-7879
Telephone (414) 683-7803 Fax (414) 683-7879

SECTION III - INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan State WI Zip 53082-1249
Contact Rachel Gahan

Has an account been opened? Yes ☒ No ☐
If Yes, Account # 1015

Telephone (414) 458-6030 Fax (414) 452-7254

SECTION IV - SAMPLING

A sample bearing this label must accompany this report to initiate the approval review process. Complete this label and attach to a **REPRESENTATIVE ONE-PINT SAMPLE** of the waste.

Record the date and name of person sampling:

Sampling completed by Chris Eddy

Date sample collected 8/28/91

Date sample and form sent _____

* See full instructions on separate sheet. Printed on Recycled Paper Form 911 (6-91)

SECTION V - SHIPPING AND HANDLING INFORMATION

1. Is this waste:
   a. Reactive? Yes ☐ No ☒
   b. Shock Sensitive? Yes ☐ No ☒
   c. Explosive? Yes ☐ No ☒
   d. Pyrophoric? Yes ☐ No ☒
   e. Oxidizer? Yes ☐ No ☒
   f. Radioactive? Yes ☐ No ☒

   If yes, contact an Envotech Management Services Representative at (313) 697-7830 **before completing this form.**
2. Shipping Mode: Bulk Liquid ☐ Bulk Solid ☐ Drums ☒ Other ☐
3. Shipping Volume per Week _____ per Month _____
4. Annual Total Volume semi- 1-2 Drums One Time Only Volume _____
5. DOT Shipping Name* Hazardous Waste Solid, n.o.s. (Zinc)
   Hazard Class* ORM-E UN/NA #* NA9189

SECTION VI - WASTE "FINGERPRINT"

1. Select one or more general description(s) for the waste at 70°F:
   - Powdery Solid ☐
   - Other Solid* ☒
   - Soils ☐
   - Sludge (non pumpable) ☐
   - Liquid (pumpable) ☐
   - Liquid (multi phase) ☐
   - Debris (describe) _____
2. Does the waste have a characteristic odor?* Yes ☐ No ☒ Describe _____
3. Color Description*: Gray/Brown

   USEPA SW-846* Method
4. Are Free Liquids associated with this waste? Yes ☐ No ☒ ..... Method 9095
5. Density: _____ lbs/gallon or lbs/cubic yards or 3.0 - 3.1 specific gravity
6. pH-Range: <2 ☐ 2-4.9 ☐ 5-9.9 ☒ 10-12.4 ☐ >12.5 ☐ (attach lab results) . . . . .Method 9040 or 9045
7. Flash Point: - Liquid:* <90°F ☐ 90-140°F ☐ 140-200°F ☐ >200°F ☒ (attach lab results) . . Method 1010
   (If Flash Point <140°F, provide TOC and VOC analytical results.)
   - Solid:* <90°F ☐ 90-140°F ☐ >140°F ☒

SECTION VII - GENERATING PROCESS & HAZARDOUS CHARACTERISTIC(S)

Waste Common Name Solder & Flux

2. Provide a description of the process(es) generating this waste: **(A DETAILED EXPLANATION MUST BE PROVIDED. ATTACH ADDITIONAL PAGE(S) SHOWING PROCESS FLOW DIAGRAM AND DETAILS IF NECESSARY*)**
   Dripping from Grid Oven - Soldering Operation
3. Based upon lab analyses and/or knowledge of the process(es) generating the waste, describe the composition of the waste:

	Minimum		Maximum	
Solid Solder Alloys	75	to	95	%
Soldering Paste	1	to	5	%
Soldering Flux	1	to	5	%
		to		%
TOTAL:			100	%

4. Based upon RCRA Hazardous Waste Regulations (40 CFR 261) and Michigan Act 64 Rules:

	YES	NO	CODES
a. Does this waste meet any F listing description?	☐	☒	
b. Does this waste meet any K listing description?	☐	☒	
c. Does this waste meet any P listing description?	☐	☒	
d. Does this waste meet any U listing description?	☐	☒	
e. Does this waste exhibit Ignitability? (attach lab results)	☐	☒	
f. Does this waste exhibit Corrosivity? (attach lab results)	☐	☒	
g. Does this waste exhibit Reactivity? (attach lab results)	☐	☒	
h. Does this waste exhibit Toxicity? (attach lab results)	☐	☒	
i. Does this waste leach Copper > 100ppm? (attach lab results)	☐	☒	
j. Does this waste leach Zinc > 500ppm? (attach lab results)	☒	☐	003D

5. For hazardous wastes, does the waste exceed any land Disposal restriction treatment standard(s) for the applicable codes?* (attach lab results) ☐ ☒
6. Is this a non-hazardous liquid waste regulated by Michigan Act 136?* ☐ ☒

Attach analytical results for all LDR constituents of concern for waste codes identified in item 4 (above).

* See full instructions on separate sheet.

SECTION VIII - RECLAMATION/RECYCLING/FUEL BLENDING*

Only for Michigan Recovery Systems, Inc. wastes, perform all of the following analyses:

Water (%) _____ Solids (%) _____ Heat value (BTU/lb) _____

Sulfur (%) _____ Chlorine (%) _____ PCBs (total ppm) _____

Enclose lab reports for F001 - F005 solvent scan and TCLP metals:* Ash (%) _____

SECTION IX - CERTIFICATIONS

	Yes	No
1. Does the waste contain cyanide amenable to chlorination above 250 ppm?*	☐	☒
2. Does the waste contain reactive sulfide above 500 ppm?*	☐	☒
3. Does this waste contain PCBs greater than 49 ppm?*	☐	☒
4. Is this a dioxin/furan waste as specified in 40 CFR 261.31 under Hazardous Waste numbers F020, F021, F022, F023, F026, F027, F028?	☐	☒
5. Is this a California List hazardous waste containing halogenated organic compounds found in Appendix III of 40 CFR Part 268 in total concentration greater than or equal to 1,000 mg/L?	☐	☒
6. Is this a liquid hazardous waste containing Nickel (>134 mg/L) or Thallium (>130 mg/L)?	☐	☒

7. Mark the "Yes" column to indicate which TCLP testing has been conducted. (attach lab results*)
For those constituents not tested, mark "No" and sign the certification provided.
Either "Yes" or "No" **MUST** be checked for each and every constituent.

TCLP REGULATORY ACTION LEVELS			CONSTITUENT TESTING CONDUCTED OR CERTIFICATION	
ZHE ORGANICS*	mg./L	YES	NO	CERTIFICATION
D018 Benzene	0.5	☒	☐	"Based upon my knowledge of the waste and the process generating the waste, these constituents are not present in the waste above hazardous classification levels."
D019 Carbon Tetrachloride	0.5	☒	☐	
D021 Chlorobenzene	100.0	☒	☐	
D022 Chloroform	6.0	☒	☐	
D028 1,2-Dichloroethane	0.5	☒	☐	
D029 1,1-Dichloroethylene	0.7	☒	☐	
D035 Methyl Ethyl Ketone	200.0	☒	☐	Signed _____
D039 Tetrachloroethylene	0.7	☒	☐	
D040 Trichloroethylene	0.5	☒	☐	
D043 Vinyl Chloride	0.2	☒	☐	
METALS*				CERTIFICATION
D004 Arsenic	5.0	☒	☐	"Based upon my knowledge of the waste and the process generating the waste, these constituents are not present in the waste above hazardous classification levels."
D005 Barium	100.0	☒	☐	
D006 Cadmium	1.0	☒	☐	
D007 Chromium	5.0	☒	☐	
D008 Lead	5.0	☒	☐	
D009 Mercury	0.2	☒	☐	
D010 Selenium	1.0	☒	☐	Signed _____
D011 Silver	5.0	☒	☐	
001D Copper	100.0	☒	☐	
003D Zinc	500.0	☒	☐	
ACID EXTRACTABLES*				CERTIFICATION
D023 o-Cresol**	200.0	☒	☐	"Based upon my knowledge of the waste and the process generating the waste, these constituents are not present in the waste above hazardous classification levels."
D024 m-Cresol**	200.0	☒	☐	
D025 p-Cresol**	200.0	☒	☐	
D026 Cresol	200.0	☒	☐	
D037 Pentachlorophenol	100.0	☒	☐	
D041 2,4,5-Trichlorophenol	400.0	☒	☐	
D042 2,4,6-Trichlorophenol	2.0	☒	☐	Signed _____

** If o, m and p Cresols cannot be differentiated, use Total Cresol concentration

(Continued)

* See full instructions on separate sheet.

SECTION IX - CERTIFICATIONS (Continued)

TCLP REGULATORY ACTION LEVELS			CONSTITUENT TESTING CONDUCTED OR CERTIFICATION	
BASE NEUTRAL EXTRACTABLES*	mg./L	YES	NO	CERTIFICATION
D027 1,4-Dichlorobenzene	7.5	☒	☐	"Based upon my knowledge of the waste and the process generating the waste, these constituents are not present in the waste above hazardous classification levels." Signed _____
D030 2,4-Dinitrotoluene	0.13	☒	☐	
D032 Hexachlorobenzene	0.13	☒	☐	
D033 Hexachlorobutadiene	0.5	☒	☐	
D034 Hexachloroethane	3.0	☒	☐	
D036 Nitrobenzene	2.0	☒	☐	
D038 Pyridine	5.0	☒	☐	
PESTICIDES*				CERTIFICATION
D020 Chlordane	0.03	☒	☐	"Based upon my knowledge of the waste and the process generating the waste, these constituents are not present in the waste above hazardous classification levels." Signed _____
D012 Endrin	0.02	☒	☐	
D031 Heptachlor (& its Hydroxide)	0.008	☒	☐	
D013 Lindane	0.4	☒	☐	
D014 Methoxychlor	10.0	☒	☐	
D015 Toxaphene	0.5	☒	☐	
HERBICIDES*				
D016 2,4-D	10.0	☒	☐	
D017 2,4,5-TP (Silvex)	1.0	☒	☐	

REQUIREMENTS FOR A COMPLETE APPLICATION SUBMITTAL

APPLICATION PACKAGE CONTENTS

All pertinent items must be included together in one application package.

- ☐ 1) Waste Characterization Report Form
- ☐ 2) Lab Reports Required for:
- ☐ a. Free Liquid Testing
- ☐ b. pH
- ☐ c. Flashpoint
- ☐ d. Cyanide
- ☐ e. Sulfide
- ☐ f. Land Disposal Restriction Constituent Levels
- ☐ g. TCLP testing, including Copper and Zinc
- ☐ 3) Representative Sample of Waste
- ☐ 4) MSDS
- ☐ 5) Other: _____

"I hereby authorize Envotech personnel to add supplemental information to the waste approval file provided I am contacted to give verbal permission. I authorize Envotech personnel to obtain a sample from any waste shipment for purposes of verification and confirmation."

Signed _____

"I certify that all information (including attached information) is complete and factual and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein."

Signature _____ Printed Name Kenneth Engman Date 10/22/91

* See full instructions on separate sheet.

ORTEK
ENVIRONMENTAL LABORATORY
2496 West Mason Street P.O. Box 12435 Green Bay, WI 54307-2435
414-498-2222
FAX: 414-498-4067

- SAMPLE ANALYSIS REPORT -

TO: E & K HAZARDOUS
2905 PAINE AVENUE
SHEBOYGAN WI 53082-1249

ATTN: JANICE HINTZ

Batch ID: 9108280 Report Date: 10/15/91
Our Lab #: 116588
Your Sample ID: EK 8078
Sample Matrix: WASTE

COLLECTION INFORMATION

Date/Time/By: 08/28/91 C E
Location: MANITOWOC EQUIP WORKS

Lab#	Test		Results	Units	Date Analyzed
116588	TCLP Arsenic	<	300	ug/l	09/10/91
	TCLP Barium		870	ug/l	09/09/91
	TCLP Cadmium		210	ug/l	09/10/91
	TCLP Chromium	<	130	ug/l	09/09/91
	TCLP Copper	<	140	ug/l	09/17/91
	TCLP Lead		1100	ug/l	09/09/91
	TCLP Mercury	<	20.0	ug/l	09/06/91
	TCLP Nickel	<	230	ug/l	09/09/91
	TCLP Selenium	<	300	ug/l	09/10/91
	TCLP Silver	<	90.0	ug/l	09/09/91
	TCLP Zinc		5800000	ug/l	09/17/91
	Free Cyanide	<	0.54	ug/g	09/09/91
	Free Liquids		NONE		09/03/91
	Flash Point	>	210	o F	09/03/91
	Non-Volatile TCLP Extraction		EXTRACTED		09/04/91
	pH		5.6	S.U.	09/09/91
	Reactive Sulfide	<	21.0	mg/kg	09/21/91
	Total Solids		93.2	%	09/03/91
	Odor		NONE		09/03/91
	Volume		1700	grams	09/03/91
	Physical State		SOLID		09/03/91
	Specific Gravity		1.22		09/10/91
	Volatile TCLP Extraction		EXTRACTED		09/04/91
	Color		GREY-BROWN		09/03/91
	Parr Bomb Chloride(% Chlorine)		3.10	%	09/09/91
	Total Phenol	<	5.00	mg/l	09/10/91
	Layers		SINGLE		09/03/91

Signed: Marcia A. Kuehl Date: 10/15/91

Signed: _____ Date: _____

ORTEK
ENVIRONMENTAL LABORATORY
2496 West Mason Street P.O. Box 12435 Green Bay, WI 54307-2435
414-498-2222
FAX: 414-498-4067

CLIENT: E & K HAZARDOUS
ADDRESS: 2905 PAINE AVENUE
P O BOX 1249
SHEBOYGAN WI 53082-1249

ATTENTION: JANICE HINTZ
TELEPHONE: (414) 458-6030

Wisconsin Certification No. 405099530

Sample ID: EK8078
Sample Desc: SOLDER FLUX/GRIT
Date Collected: 08/28/91
Date Received: 08/30/91
Job #: 12753 MANITOWOC EQUIP WORKS

TCLP ZERO-HEADSPACE VOLATILE ORGANIC ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION mg/l	REGULATORY LIMITS
Benzene	0.04	ND	0.5
Carbon Tetrachloride	0.04	ND	0.5
Chlorobenzene	0.04	ND	100
Chloroform	0.04	ND	6.0
1,4-Dichlorobenzene	0.04	ND	7.5
1,2-Dichloroethane	0.04	ND	0.5
1,1-dichloroethene	0.04	ND	0.7
Methyl Ethyl Ketone	0.20	ND	200
Tetrachloroethene	0.04	ND	0.7
Trichloroethene	0.04	ND	0.5
Vinyl Chloride	0.04	ND	0.2

ND = Not Detected

Comments: Lab Sample ID: 9108280 - 116588
Date Analyzed: 09/06/91 & 09/08/91
Analyzed by GC/MS Method 8240.

Signed: _____ Date: 9-17-91

ORTEK
ENVIRONMENTAL LABORATORY
2496 West Mason Street P.O. Box 12435 Green Bay, WI 54307-2435
414-498-2222
FAX: 414-498-4067

CLIENT: E & K HAZARDOUS
ADDRESS: 2905 PAINE AVE
P O BOX 1249
SHEBOYGAN WI 53082-1249

ATTENTION: JANICE HENTZ
TELEPHONE: (414) 458-6030

Wisconsin Certification No. 405099530

Sample ID: EK8078
Sample Desc: TCLP
Date Collected: 08/28/91
Date Received: 08/29/91
Job #: MAINTOWOC EQUIP WORKS

TCLP SEMIVOLATILE ORGANIC LEACHATE ANALYSIS RESULTS

PARAMETERS	DETECTION LIMIT	CONCENTRATION mg/l	REGULATORY LIMITS
o-Cresol	0.05	ND	200
m-Cresol	0.05	ND	200
p-Cresol	0.05	ND	200
2,4-Dinitrotoluene	0.05	ND	0.13
Hexachlorobenzene	0.05	ND	0.13
Hexachlorobutadiene	0.05	ND	0.5
Hexachloroethane	0.05	ND	3
Nitrobenzene	0.05	ND	2
Pentachlorophenol	0.25	ND	100
Pyridine	0.05	ND	5
2,4,5-Trichlorophenol	0.25	ND	400
2,4,6-Trichlorophenol	0.05	ND	2

ND = Not Detected

Comment: Lab Sample ID: 9108280 - 116588
Date Extracted: 09/06/91
Date Analyzed: 09/18/91
Analyzed by Modified GC/MS Method 8270.

Signed: Dan [illegible] Date: 10-1-91

ORTEK
ENVIRONMENTAL LABORATORY
2496 West Mason Street P.O. Box 12435 Green Bay, WI 54307-2435
414-498-2222
FAX: 414-498-4067

CLIENT: E & K HAZARDOUS
ADDRESS: 2905 PAINE AVENUE
P O BOX 1249
SHEBOYGAN WI 53082-1249

ATTENTION: JANICE HINTZ
TELEPHONE: (414) 458-6030

Wisconsin Certification No. 405099530

Sample ID: EK8078
Sample Desc: SOLDER FLUX/GRIT
Date Collected: 08/28/91
Date Received: 08/30/91
Job #: 12753/MANITOWOC EQUIP WORKS

F-500 ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION mg/kg*
,1,1-Trichloroethane	<0.3	ND
,1,2,-Trichlorotrifluoroethane	<0.3	ND
,1-Dichloroethylene	<0.3	ND
,2-Dichlorobenzene	<0.3	ND
Carbon Tetrachloride	<0.3	ND
Ch oform	<0.3	ND
Dichlorodifluoromethane	<0.6	ND
Methylene Chloride	<0.3	0.5
Tetrachloroethylene	<0.3	ND
Trichloroethylene	<0.3	ND
Trichlorofluoromethane	<0.3	ND
cis-1,2-Dichloroethylene	<0.3	ND
trans-1,2-Dichloroethylene	<0.3	ND

ND = Not Detected
* = Results expressed as is (wet basis).

COMMENTS: Lab Sample ID: 9108012 - 115378

Signed: [signature] Date: 10-1-91

806
Grill Ovens

U.S. Department of Labor
Occupational Safety and Health Administration

Required under USDL Safety and Health Regulations for Shipyard Employment (29 CFR 1915)

OMB No 1218-0074
Expiration Date 05/31/86

9500783

Section I

Manufacturer's Name: [redacted]

Emergency Telephone Number: (201) 867-1030

Address (Number, Street, City, State, and ZIP Code): 931 Lehigh Ave, Union, N.J. 07083

Chemical Name and Synonyms: [redacted]

Trade Name and Synonyms: F100-964 P4 (X5-224-3) 964 P4

Chemical Family: Inorganic Salt

Formula:

Section II - Hazardous Ingredients

Paints, Preservatives, and Solvents	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
Pigments			Base Metal		
Catalyst			Alloys: Silver 2.8		0.01 mg/m³
Vehicle			Metallic Coatings: Tin 77.2		2 mg/m³
Solvents			Filler Metal Plus Coating or Core Flux		
Additives			Others		
[illegible]					

Hazardous Mixtures of Other Liquids, Solids or Gases

	%	TLV (Units)
Zinc Chloride (8 Hr. time weighted average fume)		1 mg/m³
Ammonium chloride fumes		10 mg/m³

Section III - Physical Data

Boiling Point (°F)	260°F.	Specific Gravity (H_2O=1)	
Vapor Pressure (mm Hg)		Percent Volatile by Volume (%)	
Vapor Density (Air=1)		Evaporation Rate (_____=1)	

Solubility in Water: Dispersible

Appearance and Odor: Grey paste, slight amine odor

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	Lel	Uel
NONE			

Extinguishing Media: Apply alcohol type or all purpose type foam by manufacturers' recommended techniques for large fires. Use water spray, carbon dioxide or dry chemical for small fires.

Special Fire Fighting Procedures: Do not spray pool fires directly. A solid stream of water or foam directed into hot, burning liquid can cause frothing. Use NIOSH/MSHA approved self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: NONE

Health Hazard Data

Threshold Limit Value

Silver 0.01 mg/m^3 Tin 2 mg/m^3 (As Tin Oxide 10 mg/m^3)

Effects of Overexposure

Causes burns, fume, dust or mist may cause injury to respiratory tract. Severe exposure may cause lung damage. The material is corrosive to the eyes and skin. Inhalation of Tin Oxide may lead to benign pneumoconosis. Certain tin salts are irritants to the mucous membranes and skin.

Emergency First Aid Procedures

Eyes and Skin: Flush eyes or skin with plenty of water. Call a physician.
Inhaled: Remove to fresh air immediately. If not breathing, give artificial respiration.
Swallowed: Do not induce vomiting. Give large quantities of water or milk. Call a physician.

Section VI - Reactivity Data

Stability			Conditions to Avoid
	Unstable		
	Stable	x	

Incompatibility (Materials to Avoid)

Cyanides (may release toxic HCN gas)

Hazardous Decomposition Products

Burning may produce carbon dioxide or carbon monoxide

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	

Section VII - Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled

1) Scrape and shovel up material
2) Place in closed containers

Waste Disposal Method This material may have value on a recycled basis. Comply with applicable Federal, state and local regulations. If non-recyclable and hazardous under 40 CFR 261, Subparts B & C, material must be treated ro disposed in a facility meeting the requirements of 40 CFR 264 or 265. If recyclable or non-hazardous, material should be recycled or disposed in a facility meeting the requirements of 40 CFR 257.

Section VIII - Special Protection Information

Respiratory Protection (Specify Type) If TLV(s) exceed, see OSHA 29 CFR 1910 134 (Tin) ANSI Z88.2-1969. NIOAH-BOM approved respirators only)

Ventilation	Local Exhaust	Special
	ANSI Z9.2-1960 (fume hood over soldering area)	
	Mechanical (General)	Other
	ACGIH "Industrial Ventilation" 13th Edition	

Protective Gloves	Eye Protection
(Heat) Protective recommended	Goggles, Safety glasses, and/or Faceshield

Other Protective Equipment

As required to meeet applicable OSHA 29CFR 1910.1000 (Tin) when TLV(s) are exceeded.

Section IX - Special Precautions

Precautions to be Taken in Handling and Storing

Wash hands after handling. Practice good housekeeping procedures.

Store material in closed container (s) to prevent oxidation.

Other Precautions Do not permit smoking, eating, or drinking while handling material. Practice good personal hygiene. If TLV9s) exceeded, CFR 910.1000 (Tin). Keep soldering

Turbo Braze®

TIN Inhalation of Tin Oxide may lead to benign pneumoconosis. Certain Tin salts are mild irritants to the skin and mucous membranes. Emergency first aid treatment - If molten, treat as burn. Inhalation: remove patient from area to fresh air. Ingestion: water, vomit. Refer to physician

Turbo Braze Corporation
[illegible] AVENUE UNION NEW JERSEY [illegible]
CALL [illegible] OUT OF STATE TOLL FREE NUMBER [illegible]

93-0069-3

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1367

93-0071-3
802
Grid Ovens

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME [redacted]	EMERGENCY TELEPHONE NO. (414) 769-6000
ADDRESS (Number, Street, City, State and ZIP Code) 3656 So. Pennsylvania Ave. Cudahy, WI 53110	
CHEMICAL NAME AND SYNONYMS Tin - Silver	TRADE NAME AND SYNONYMS [redacted]
CHEMICAL FAMILY NON-FERROUS ALLOY	FORMULA 96.5% Sn/ 3.5 Ag Solid to.5 Max. Sb

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS	100	0.2 mg
VEHICLE			METALLIC COATINGS PER CUBIC METER OF AIR.		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
SOLDER ± HCl OR H_2SO_4 MIGHT GIVE OFF ARSINE, AsH_3; OR		
STIBINE SbH_3.		0.50 PPM
NITRIC ACID + SOLDER ALLOY = NITROGEN DIOXIDE NO_2		
(RED-BROWN GAS) SEE ATTACHED PAPER		5 PPM

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	2500	SPECIFIC GRAVITY (H_2O=1)	7.9-11.2
VAPOR PRESSURE (mm Hg.) AT 973°C	1.0	PERCENT, VOLATILE BY VOLUME (%)	N.A.
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	N.A.
SOLUBILITY IN WATER	INSOLUBLE		
APPEARANCE AND ODOR	SILVER GRAY COLOR SOLID - NO ODOR		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	LFL N.A.	UFL N.A.
EXTINGUISHING MEDIA	NOT APPLICABLE			
SPECIAL FIRE FIGHTING PROCEDURES	IN HIGH TEMPERATURE FIRE (2,000°F) A SELF-SUSTAINING RESPIRATORY SYSTEM IS A MUST.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	DANGEROUS, EMITS TOXIC FUMES, WHEN HEATED AS IN FIRE. THESE CAN BE ARSENIC, ANTIMONY, CADMIUM OR LEAD.			

(Continued on reverse side)

NOV 1 1979

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 0.2 MILLIGRAM PER CUBIC METER OF AIR.

EFFECTS OF OVEREXPOSURE NAUSEA, VOMITING CAN OCCUR DURING SOLDERING PROCESSES. THESE SYMPTOMS CAN ALSO BE RELATED TO THE FLUX USED.

EMERGENCY AND FIRST AID PROCEDURES REMOVE PATIENT FROM CONTAMINATED AREA INTO FRESH AIR. THE SYMPTOMS ARE TRANSITORY IF THEY ARE FLUX RELATED. IF DISCOMFORT PERSISTS SEE A PHYSICIAN.

SECTION VI - REACTIVITY DATA

			CONDITIONS TO AVOID
STABILITY	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

			CONDITIONS TO AVOID
HAZARDOUS POLYMERIZATION.	MAY OCCUR		
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED PICKUP & RE-USE. FINE DUST SHOULD BE SWEPT GENTLY & DISPOSED OF IN DUSTBIN. METAL PARTICLES DO NOT REPRESENT ANY PROBLEM.

WASTE DISPOSAL METHOD CONTAMINATED MATERIAL CAN BE PLACED IN A STORAGE AREA AND SOLD FOR SCRAP.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION	LOCAL EXHAUST DURING SOLDERING	SPECIAL	
	MECHANICAL (General)	OTHER	

PROTECTIVE GLOVES ADVISABLE DURING SOLDERING.

EYE PROTECTION RECOMMENDED DURING SOLDERING.

OTHER PROTECTIVE EQUIPMENT

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING NONE, EXCEPT THOSE COMMENSURABLE WITH GOOD PRACTICE & GOOD HOUSEKEEPING.

OTHER PRECAUTIONS A GOOD VENTILATION IS A MUST DURING SOLDERING PROCESSES, TO KEEP ANY TOXIC FUMES DOWN TO 0.2 MG PER CUBIC METER OF AIR.

93-0081-3
802
Grid Ozone

...ed under USDL Safety and Health Regulations
...ydro Employment (29 CFR 1915)

U.S. Department of Labor
Occupational Safety and Health Administration

OMB No 1218 0074
Expiration Date 05/31/84

...n I

...acturer's Name: [redacted]

Emergency Telephone Number: (201) 687-1030

...ss (Number, Street, City, State and ZIP Code): 931 Lehigh Ave
Union, N.J. 07083

Chemical Name and Synonyms:

Trade Name and Synonyms: [redacted]

Chemical Family: Inorganic Salt

Formula:

...on II - Hazardous Ingredients

...s, Preservatives, and Solvents	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
...ents			Base Metal		
...rst			Alloys		
...cle			Metallic Coatings		
...ents			Fiber Metal Plus Coating or Core Flux		
...ives			Others		
...s					

...ous Mixtures of Other Liquids, Solids or Gases

	%	TLV (Units)
Zinc Chloride (8 Hr. time weighted average fume)		1 mg/m^3
Ammonium chloride fumes		10 mg/m^3

...tion III - Physical Data

...ing Point (°F)	260°F.	Specific Gravity (H_2O=1)	
...por Pressure (mm Hg)		Percent Volatile by Volume (%)	
...por Density (AIR=1)		Evaporation Rate	

...ubility in Water: Dispersible

...pearance and Odor: Grey

...ction IV - Fire and Explosion Hazard Data

...sh Point (Method Used) NONE	Flammable Limits	Lel	Uel

...inguishing Media: Apply alcohol type or all purpose type foam by manufacturers' recommended techniques for large fires. Use water spray, carbon dioxide or dry chemical for small fires

...e Fighting Procedures: Do not spray pool fires directly. A solid stream of water or foam directed into hot, burning liquid can cause frothing. Use NIOSH/MSHA approved self-contained breathing apparatus and protective clothing.

...usual Fire and Explosion Hazards: NONE

n V - Health Hazard Data

od Limit Value

Exposure

Causes burns, fume, dust or mist may cause injury to respiratory tract. Severe exposure may cause lung damage. The material is corrosive to the eyes and skin. Inhalation of Tin Oxide may lead to benign pneumoconosis. Certain tin salts are irritants to the muc membranes and skin.

gency First Aid Procedures

Eyes and Skin: Flush eyes or skin with plenty of water. Call a physician.
Inhaled: Remove to fresh air immediately. If not breathing, give artificial respiration.
Swallowed: Do not induce vomiting. Give large quantities of water or milk. Call a physic

ction VI - Reactivity Data

bility	Unstable		Conditions to Avoid
	Stable	X	

compatability (Materials to Avoid)

Cyanides (may release toxic HCN gas)

azardous Decomposition Products

Burning may produce carbon dioxide or carbon monoxide

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Sec VII - Spill or Leak Procedures

be Taken in Case Material is Released or Spilled

1) Scrape and shovel up material
2) Place in closed containers

Waste Disposal Method This material may have value on a recycled basis. Comply with applicable Federal, state and local regulations. If non-recyclable and hazardous under 40 CFR 261, Subparts B & C, material must be treated ro disposed in a facility meeting the requirements of 40 CFR 264 or 265. If recyclable or non-hazardous, material should be recycled or disposed in a facility meeting the requirements of 40 CFR 257.

Section VIII - Special Protection Information

Respiratory Protection (Specify Type) If TLV(s) exceed, see OSHA 29 CFR 1910 134 (Tin) ANSI Z88.2-1969.
NIOAH-BOM approved respirators only)

Ventilation	Local Exhaust: ANSI Z9.2-1960 (fume hood over soldering area)	Special
	Mechanical (General): ACGIH "Industrial Ventilation" 13th Edition	Other

Protective Gloves (Heat) Protective recommended

Eye Protection Goggles, Safety glasses, and/or Faceshield

Other Protective Equipment

As required to meeet applicable OSHA 29CFR 1910.1000 (Tin) when TLV(s) are exceeded.

Section IX - Special Precautions

Precautions to be Taken in Handling and Storing

Wash hands after handling. Practice good housekeeping procedures.
Store material in closed container (s) to prevent oxidation.

Other Precautions Do not permit smoking, eating, or drinking while handling material. Practice good personal hygiene. If TLV9s) exceeded, CFR 910.1000 (Tin). Keep soldering temperatures as low as possible to minimize the generation of fumes. See ANSI Z49.1 Standard for soldering

MANUFACTURED BY:

GENERAL ELECTRIC CO.
SILICONE PRODUCTS DIV.
WATERFORD, NY 12188

EMERGENCY TELEPHONE:
USA: (518) 237-3330 (24 HRS)

REVISED: 08/10/88
PREPARER: DA POLSINELLI

*** I PRODUCT IDENTIFICATION ***

PRODUCT IDENTIFICATION: SS4004 CHEMICAL FAMILY: POLYSILOXANE
CHEMICAL NAME: SILICONE POLYMER IN SOLVENT FORMULA: MIXTURE

*** II PRODUCT COMPONENTS ***

PRODUCT COMPOSITION	APPROX. %	ACGIH TLV	OSHA PEL	UNITS	CAS REG NO.
A. HAZARDOUS					
N-BUTANOL	< 20%	50	100	PPM	71-36-3*
ACETONE	< 40%	750	1000	PPM	67-64-1*
ISOPROPANOL	< 30%	400	400	PPM	67-63-0*
TOLUENE	< 20%	100	200	PPM	108-88-3*
TRADE SECRET COMPONENT	< 5%	10	100	PPM	
BENZENE	<0.1	10	10	PPM	71-43-2*
B. NON-HAZARDOUS					

*** III PHYSICAL DATA ***

**PRODUCT INFORMATION

BOILING POINT : NA (F) NA (C)
VAPOR PRESSURE(20 C): NA MM HG
VAPOR DENSITY(AIR=1): NA
FREEZING POINT : NA (F) NA (C)
MELTING POINT : NA (F) NA (C)
PHYSICAL STATE : LIQUID
ODOR : PUNGENT
COLOR : PINK
SOLUBILITY IN WATER(20C): REACTS
SOLUBILITY IN ORGANIC SOLVENT: SOLUBLE, TOLUENE
(STATE SOLVENT)

% VOLATILE BY VOLUME: ~80
EVAPORATION RATE (BUTYL ACETATE=1) :<1
SPECIFIC GRAVITY (WATER=1) :0.8
DENSITY :826.7 KG/M3
ACID/ALKALINITY :UNKNOWN MEG/G
PH :NA

N-BUTANOL
BOILING POINT : 244 (F) 117 (C)
VAPOR PRESSURE(20 C) : 4.2 MM HG
VAPOR DENSITY(AIR=1) : 2.6

Lab Pack to ENSCO
Manifest # AR-435883

ACETONE
BOILING POINT : 133 (F) 56 (C)
VAPOR PRESSURE(20 C) : 250 MM HG
VAPOR DENSITY(AIR=1) : 2

ISOPROPANOL
BOILING POINT : 180 (F) 82 (C)
VAPOR PRESSURE(20 C) : 9 MM HG
VAPOR DENSITY(AIR=1) : 2.6

TOLUENE
BOILING POINT : 230 (F) 110 (C)
VAPOR PRESSURE(20 C) : 28 MM HG
VAPOR DENSITY(AIR=1) : 3.2

TRADE SECRET COMPONENT
BOILING POINT : 334 (F) 168 (C)
VAPOR PRESSURE(20 C) : 2.0 MM HG
VAPOR DENSITY(AIR=1) : 7.2

BENZENE
BOILING POINT : (F) (C)
VAPOR PRESSURE(20 C) : MM HG
VAPOR DENSITY(AIR=1) :

*** IV FIRE AND EXPLOSITION DATA ***

FLASH PT: 10 (F) -12 (C) BY PMCC IGNITION TEMP: 700 (F) 370 (C)
FLAMMABLE LIMITS IN AIR(%): LOWER 1 UPPER 12
EXTINGUISHING MEDIA
ALCOHOL FOAM
CARBON DIOXIDE
DRY CHEMICAL
FOAM
WATER MIST
SPECIAL FIREFIGHTING PROCEDURES:
EXTREMELY FLAMMABLE.
WEAR FULL PROTECTIVE CLOTHING.

*** V REACTIVITY DATA ***

STABILITY:
X STABLE UNSTABLE
HAZARDOUS:
POLYMERIZATION WILL NOT OCCUR
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE.
CARBON DIOXIDE.
SILICON DIOXIDE.
OXIDES OF NITROGEN.
INCOMPATIBILITY (MATERIALS TO AVOID):

CONTACT WITH OXIDIZING AGENTS.

CONDITIONS TO AVOID:

KEEP AWAY FROM HEAT,SPARKS AND OPEN FLAME.
AVOID ANY SOURCE OF IGNITION.

*** VI HEALTH HAZARD DATA ***

ACUTE SIGNS/EFFECTS OF OVEREXPOSURE:

INGESTION:

HARMFUL IF SWALLOWED.
CAUSES VOMITING,NAUSEA,AND DIARRHEA
IRRITATION OF THE MOUTH, THROAT, AND STOMACH

SKIN CONTACT:

CAUSES DRYING OF THE SKIN.
HARMFUL IF ABSORBED THRU THE SKIN.

INHALATION:

EXCESSIVE INHALATION CAUSES HEADACHE,DIZZINESS,NAUSEA AND INCOORDINATION.
CAUSES MODERATE RESPIRARTORY IRRITATION.
HARMFUL IF INHALED.

EYE CONTACT:

CAUSES SEVERE EYE IRRITATION MAY DAMAGE TISSUE.

MEDICAL CONDITIONS AGGRAVATED:

RESPIRATORY
LIVER, KIDNEY

OTHER:

NONE KNOWN.

CHRONIC EFFECTS OF OVEREXPOSURE:

DERMATITIS.
RESPIRATORY AILMENTS.
CENTRAL NERVOUS SYSTEM DAMAGE.
LIVER AND KIDNEY DAMAGE.
CORNEAL DAMAGE.
PULMONARY EDEMA.

EMERGENCY AND FIRST AID PROCEDURES:

INGESTION:

IF SWALLOWED DO NOT INDUCE VOMITING, GIVE LARGE QUANTITIES OF WATER TO DRINK AND GET MEDICAL ATTENTION, NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SKIN:

REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE REUSE.
WASH WITH SOAP AND WATER.
GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

INHALATION:

IF INHALED, REMOVE TO FRESH AIR, IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO MOUTH. IF BREATHING IS DIFFICULT GIVE OXYGEN. GET MEDICAL ATTENTION.

EYES:
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN:
NONE KNOWN.

TOXICITY:	N-BUTANOL	
ACUTE ORAL LD50:	790 (RAT)	MG/KG
ACUTE DERMAL LD50:	4200 (RBT)	MG/KG
ACUTE INHALATION LC50:	8000 PPM 4HR (RAT)	
OTHER: NONE.		
AMES TEST:	UNKNOWN	
TOXICITY:	ACETONE	
ACUTE ORAL LD50:	3000 (MUS)	MG/KG
ACUTE DERMAL LD50:	20,000 (RBT)	MG/KG
ACUTE INHALATION LC50:	TCLO 12000PPM/4H MAN	
OTHER: NONE.		
AMES TEST:	UNKNOWN	
TOXICITY:	ISOPROPANOL	
ACUTE ORAL LD50:	5840 (RAT)	MG/KG
ACUTE DERMAL LD50:	13,000 (RBT)	MG/KG
ACUTE INHALATION LC50:	16,000 PPM 8HR (RAT)	
OTHER: NONE.		
AMES TEST:	UNKNOWN	
TOXICITY:	TOLUENE	
ACUTE ORAL LD50:	5000 (RAT)	MG/KG
ACUTE DERMAL LD50:	14,000 (RBT)	MG/KG
ACUTE INHALATION LC50:	5320 PPM 8HR (MUS)	
OTHER: NONE.		
AMES TEST:	UNKNOWN	
TOXICITY:	TRADE SECRET COMPONENT	
ACUTE ORAL LD50:	1000 (RAT)	MG/KG
ACUTE DERMAL LD50:	NONE FOUND	MG/KG
ACUTE INHALATION LC50:	LCLO>1000PPM/4H(RAT)	
OTHER: NONE.		
AMES TEST:	UNKNOWN	
TOXICITY:	BENZENE	

ACUTE ORAL LD50: MG/KG
ACUTE DERMAL LD50: MG/KG
ACUTE INHALATION LC50:
OTHER:
AMES TEST: UNKNOWN
PRINCIPALS ROUTES OF EXPOSURE:
ORAL.
DERMAL - SKIN.
EYES.
INHALATION.
ABSORPTION THROUGH SKIN.
THIS PRODUCT OR ONE OF ITS INGREDIENTS PRESENT 0.1% OR MORE IS NOT LISTED AS A CARCINOGEN OR SUSPECTED CARCINOGEN BY NTP, IARC, OR OSHA
PRODUCTS/INGREDIENTS
THIS SPACE RESERVED FOR SPECIAL USE.

*** VII SPECIAL PROTECTIVE EQUIPMENT ***

RESPIRATORY PROTECTION:
USE IN A WELL VENTILATED AREA.
USE APPROVED NIOSH RESPIRATORY PROTECTION IF TLV EXCEEDED..... OR OVER EXPOSURE IS LIKELY.
PROTECTIVE GLOVES:
RUBBER GLOVES.
'E AND FACE PROTECTION:
SAFETY GLASSES.
MONOGOGGLES.
OTHER PROTECTIVE EQUIPMENT:
WEAR EYE PROTECTION AND PROTECTIVE CLOTHING.
VENTILATION:
USE ONLY IN WELL VENTILATED AREA.
MECHANICAL VENTILATION.

*** VIII SPILL, LEAK AND DISPOSAL PROCEDURES ***

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
WIPE, SCRAPE OR SOAK UP IN AN INERT MATERIAL AND PUT IN A CONTAINER FOR DISPOSAL.
WEAR PROPER PROTECTIVE EQUIPMENT AS SPECIFIED IN THE PROTECTIVE EQUIPMENT SECTION.
REMOVE SOURCES OF IGNITION.
WARN OTHER WORKERS OF SPILL.
INCREASE AREA VENTILATION.
DISPOSAL METHOD:
DISPOSAL SHOULD BE MADE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

*** IX SPECIAL PRECAUTIONS ***

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

USE GROUND STRAP.
STORE UPRIGHT IN A COOL PLACE BELOW 30°C (85°F).
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID BREATHING VAPORS. IF EXPOSED TO HIGH VAPOR CONCENTRATION, LEAVE AREA AT ONCE.
AVOID CONTACT WITH SKIN AND EYES.
USE ONLY IN A WELL VENTILATED AREA.
DO NOT INHALE VAPORS.
DANGER! EXTREMELY FLAMMABLE.
EMPTIED CONTAINERS MAY RETAIN HAZARDOUS PROPERTIES. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR THE CONTAINER.

ENGINEERING CONTROLS:

EXHAUST VENTILATION
SHOWERS.
EYEWASH STATIONS.
USE IN A WELL VENTILATED AREA.

*** X SHIPPING AND REGULATORY CLASSIFICATION DATA ***

DOT SHIPPING NAME: FLAMMABLE LIQUID NOS (CONTAINS ACETONE ANE TOLUENE)
DOT HAZARD CLASS: FLAMMABLE LIQUID
DOT LABELS(S): FLAMMABLE LIQUID
/NA NUMBER: UN1993
..ACARDS:
FLAMMABLE

EXPORT:
FLAMMABLE LIQUID N.O.S.(CONTAINS ACETONE AND TOLUENE), FLAMMABLE LIQUID, UN1993, CLASS 3.2, PACKAGING GROUP II, IMDG PAGE 3084.

EPA HAZARD WASTE: D001
OSHA HAZARD CLASS: FLAMMABLE LIQUID, TARGET ORGAN, ACUTE AND CHRONIC HAZARD.
CPSC CLASSIFICATION: NA
TRANSPORTATION CLASS: FLAMMABLE LIQUID 3.2
RID (OCTI) FLAMMABLE LIQUID
ADR (ECE) 3,2301,1A
RAR (IATA) FLAMMABLE LIQUID
NFPA/HMIS CLASSIFICATION FLAMMABILITY 3 , REACTIVITY 1 , HEALTH 2
ADDITIONAL INFORMATION:

THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS MADE. THE RECOMMENDED HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTENT OF THE INTENDED USE.....
.....

THIS PRODUCT OR ITS COMPONENTS ARE ON THE AUSTRALIAN INVENTORY (ACOIN).....

THIS PRODUCT CONTAINS A SUBSTANCE(S) THAT IS (ARE) ON THE LIST OF TOXIC CHEMICALS SUBJECT TO SECTION 313 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA). THIS SUBSTANCE MAY BE SUBJECT TO AN ANNUAL SUBMISSION OF A TOXIC CHEMICAL RELEASE FORM. SUCH SUBSTANCE IF PRESENT AT LESS THAN ONE PERCENT, IS NOT LISTED UNDER PRODUCT COMPOSITION IN SECTION II.....

C = CEILING LIMIT	NEGL = NEGLIGIBLE
EST= ESTIMATED	NF = NONE FOUND
NA = NOT APPLICABLE	UNKN = UNKNOWN
NE = NONE ESTABLISHED	REC = RECOMMENDED
ND = NONE DETERMINED	V = RECOMM. BY VENDOR
BY-PRODUCT = REACTION BY-PRODUCT, TSCA INVENTORY STATUS NOT REQUIRED UNDER 40 CFR PART 720.30(H-2)	SKN = SKIN
	TS = TRADE SECRET
	R = RECOMMENDED
	MST = MIST

AS A SERVICE TO ITS CUSTOMERS, GE SILICONES DISCLOSES IN THE MSDS FOR EACH PRODUCT THE PRESENCE OF EXTREMELY HAZARDOUS SUBSTANCES AT 1% OR GREATER IN THE TOTAL COMPOSITION(0.1% FOR CARCINOGENIC SUBSTANCES). ALL KNOWN TOXIC CHEMICALS AS DEFINED BY SARA ARE DISCLOSED REGARDLESS OF THE AMOUNT PRESENT IN THE COMPOSITION. IF THERE IS NO ENTRY FOUND IN THIS SECTION OF THE MSDS, THERE ARE NO TOXIC CHEMICALS OR EXTREMELY HAZARDOUS SUBSTANCES MEETING THE ABOVE CRITERIA PRESENT AS DEFINED BY THE LATEST AVAILABLE LIST.....

THIS PRODUCT CONTAINS A MATERIAL THAT IS ON THE CALIFORNIA PROPOSITION 65 LIST OF CHEMICALS.
WARNING! THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.....

Pollution Control Industries of America, Inc.

Laboratory Report Form

____Save Sample

____Profile Submitted

____Priority

X Rush

____Normal

Sample No. 6825

X In-Coming Production

____Off-Site Production

____On-Site Production

____Sales

Generator Manitowoc Equipment Works

Date of Analysis Request 7/31/90 Industry/Process Source

RCRA Code No. D001 Volume 1 DH Sales Person

Manifest Number INA0454901

Parameter	Result	Parameter	Results
Energy Value, BTU	18,400	Compatibility/Reactivity	
Total Solids		Specific Gravity	
Ash		Volatile Org. Cmpd. (VOC)	
Flash Point °F		Wt/Gal @ °F	
ulfur		Solvent Scan	
Organic Halogens	0.12	Total Cyanide (CN)	
PCB	<6.0 *	Reactive Cyanide	
Viscosity		Total Sulfide	
Nitrogen		Reactive Sulfide	
pH		K.F. %Water	
		Paint Filter	
		GC/Mass Spec	
		"Unknown" Series Includes Solvent Scan, GC/Mass Spec, Flashpoint, pH, EP Tox Metals, BTU, Organic Halogens, PCB	

Metals:	Total	E.P. Tox
Arsenic (As, D004)		
Barium (Ba, D005)		
Beryllium (Be)		
Cadmium (Cd, D006)		
Chromium (Cr, D007)		
Cobalt (Co)		
Copper (Cu)		
Iron (Fe)		
Lead (Pb, D008)		
Mercury (Hg; D009)		
Nickel (Ni)		
Selenium (Se, D010)		
Silver (Ag, D011)		
Thallium (Tl)		
Tin (Sn)		
Zinc (Zn)		

Laboratory Comments

* Composite of Samples 6824 ↔ 6830

PCIA USE ONLY
Approval No: _____
Date Approved: _____

Pollution Control Industries of America

MATERIAL SURVEY

OTHER #5218

A. Company Name MANITOWOC EQUIPMENT WORKS
Billing Address
Street 2110 S. 26TH STREET
City MANITOWOC State WI Zip 54220
Nature of Business ICE STORAGE BINS; ICE CUBE MAKERS
State ID Numbers: Illinois ID 9550716908 Missouri ID _____ State _____ ID _____
Manifest Address: ☐ Billing Address ☐ Facility Address Manifest to: ☐ PCIA ☐ Other _____

EPA ID No. (Federal) WID980570014 County MANITOWOC
Facility Address
Street 2110 S. 26TH STREET
City MANITOWOC State WI Zip 54220
S.I.C. Number 3585

B. Material Description 3M BRAND 34 INSULATION ADHESIVE
Process Description OBSOLETE CHEMICAL
Volume (gal.) 25 / ☐ Wk ☐ Mth ☐ Qtr ☐ Yr ☒ Once
Volume on Hand (gal.) _____
Storage Capacity (gal.) _____ In ☐ Drums ☐ Bulk
Shipping Frequency _____ In ☐ Drums ☐ Bulk

C. Physical Description Color DARK BROWN
Layers ☒ One ☐ Two ☐ Three
Physical State ☐ Liquid ☐ Semisolid ☐ Solid
Liquid Viscosity ☐ Low ☐ Medium ☐ High

D. Material Composition (vol%)

	Min	Max	Typical
STYRENE/BUTADIENE COPOLYMER	10	20	
POLYMERIZED ROSIN	1	10	
HYDROCARBON RESIN	10	20	
PETROLEUM DISTILLATE	60	70	
Water			
Non-volatile Material			
Settled Solids			

E. Attach material safety data sheets for material components requiring employee communication under OSHA (Ref. 29 CFR 1910.1200). Attach any current analysis of the material. ☒ MSDS attached ☐ Analysis attached ☐ No attachments.

F. Check all the following substances which may be in the material.
☐ DOT Corrosives, Poisons, Forbiddens, Radioactives, Explosives, or Gases.
☐ TSCA regulated materials (PCB, PBB, Chlorinated dibenzodioxins or furans).
☐ Materials used exclusively as pesticides, herbicides, insecticides, etc.
☐ OSHA carcinogens above exclusion levels (Ref. 29 CFR 1910.1001-).
☐ Toxic components with OSHA PEL or ACGIH TLV less than 2ppm or 8mg/m³.
☐ Toxic metals (Arsenic, Beryllium, Cadmium, Mercury, Selenium).
☐ Reactive components (Sulfides, Cyanides, Shock Sensitives, Pyrophorics, etc.).
☐ Water reactive components (Isocyanates, Acid Chlorides, Anhydrides, etc.).
☐ Biological hazards (Pathogenics, Infectious agents, Etiologic agents, etc.).
☒ None of the above ☐ Special Handling Required

Identify if present		Total heavy metals	
	AG		Cr
	As		Cu
	Ba		Hg
	Cd		Ni
	Pb		ppm CN
	Se		phenol
	Zn		

G. DOT Hazardous Material Description (Ref. 49 CFR 172.01)
Proper Shipping Name RQ Waste Flammable ~~Liquid~~ n.o.s. (D001) SOLID
Hazard Class Flam. ~~Liquid~~ SOLID Number UN~~1999~~ 1325
☐ Not DOT Hazardous Material ☐ Need assistance to determine

H. EPA Hazardous Waste Description (Ref. 40 CFR 261)
Waste Number(s) ☒ D001 ☐ D002 ☐ F001 ☐ F002 ☐ F003 ☐ F004 ☐ F005
Hazard Code(s) ☐ I ☐ T ☐ C ☐ R ☐ E ☐ H
☐ Not EPA Hazardous Waste ☐ Need assistance to determine

I. PCIA requires a sample and charges a fee for the qualification of all new material. Purchase order No. _____
Type of sample: ☐ grab ☐ tank ☐ composite of _____ # drums ☐ Sample taken by ☐ Customer ☐ PCIA Representative

J. To the best of my knowledge, this is an accurate material description and the sample submitted is representative of the material.
Name Dennis Klingbeil Title Senior Engineer
Signature [signature] Date 2-15-90 Phone (414) 683-6523
Comments _____
Sales Representative Name _____ Representative # _____ Branch # _____

LAB

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter and established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

☒ **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

☐ **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

☐ **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

☐ **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# WID980570014
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 S. 26th Street
Manitowoc, WI Zip 54220
Contact Person Ken Engman Telephone (414) 683-7868 Ext.
Alternative Contact Telephone ( ) Ext.

II. INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person Phillip Ditter Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ____ No
If Yes, list account number 1015 If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# WID982219529
Name E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person John Weber Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name Paint Line Sludge - Tank #1
2. Provide a detailed description of the process(es) generating this waste:
Caustic Water Wash Paint Line Sludge, Cleaining of Parts Prior to Painting

3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations ____ Yes X No
If Yes, List all applicable codes.

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☐ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)

.f Yes, List all applicable codes.

5. Is this waste non hazardous under US EPA & Michigan Regulation? X Yes ____ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:
029L

7. Chemical Composition

	Range Min.		Max.	
Paint Solids	80	–	90	%
Metal Fines	1	–	2	%
Dirt	1	–	3	%
Waste as Moisture	5	–	20	%
		–		%
		–		%
		–		%

NOTE: Total must be ≥ 100% in the Max. Column. Total 115 %

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? X Yes ____ No
If Yes, could these enter into the waste? ____ Yes X No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

			Actual			
Cyanide	____ No	____ Yes	<10 PPM	____ Total	X	Reactive
Sulfide	____ No	____ Yes	2 PPM	____ Total	X	Reactive
PCB's	X No	____ Yes	____ PPM			
Dioxins/ Furans	X No	____ Yes	____ PPM			

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? ____ Yes X No
Describe: ____

2. Color Description (Note if Multicolored or Subject to Variation) Brown

3. Physical State @ 70°F
____ Dust or Powder X Solid ____ Sludge ____ Liquid ____ Multilayered ____ Single Phase
X Free Liquids may be associated with this waste

4. Water Content 5-20 %

5. TOC NT %

6. TOX None %

7. Density 14.5 lb./gal. (use lbs/gallon or lbs/yd^3)

8. pH Range ____ <2 ____ >2-4 X >4-9 ____ >9-12.4 ____ >12.5 Actual 6.2

9. Flash Pt. Range ____ < 90°F ____ ≥90°-140° ____ >140°-200°F X >200°F Actual ____
Method: X Closed Cup ____ Pensky-Martens ____ Setaflash

:. Does this waste meet any of the Characteristics listed below?

Reactive	____ Yes	No No	Pyrophoric	____ Yes	No No
Explosive	____ Yes	No No	Oxidizer	____ Yes	No No
Shock Sensitive	____ Yes	No No	Radioactive	____ Yes	No No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids _____ %
5. Chlorine _____ %
6. Sulfur _____ %

7. Total Metal Analysis	Actual
Arsenic	_____ ppm
Barium	_____ ppm
Cadmium	_____ ppm
Chromium	_____ ppm
Lead	_____ ppm
Mercury	_____ ppm
Nickel	_____ ppm
Zinc	_____ ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes _____ No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes _____ No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes _____ No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes _____ No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes _____ No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 _____ Yes _____ No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes _____ No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 _____ Yes _____ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name Non-Regulated Special Waste
2. Hazard Class _____ UN/NA# _____
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid X Drums
   Other _____
4. Shipping Volume per Month _____
5. Annual or Total Volume 1-2 Drums/ Semi-Annually One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations pertaining to the waste described herein.

Name Kenneth Engman (signature)
Title C/W OPERATIONS PLT. MGR Date 8/15/97
Company Manitowoc Equip. Works Phone 414-683-7868

TOXICITY CHARACTERISTIC REPORT

INSTRUCTIONS

Volatile Organics - These analyses must be run for any waste containing oils, c r petroleum products or other organic constituents.

Metals - These analyses must be run for all wastes except commercial chemical products accompanied by a MSDS demonstrating no metal content.

Treatment Residues from TSDF's will require full TCLP analysis.

I. WASTE MANAGEMENT NEEDS
This waste is intended for (Check all that apply):

X TREATMENT:	**Michigan Disposal Inc.** 49350 N. I-94 Service Drive Belleville, MI 48111 Customer Service: (313) 699-7120	Hazardous and non-hazardous waste stabilization of solids, semi-solids, slurries and liquids. Inorganic waste treatment to BDAT standards.
__ RECOVERY/ FUEL BLENDING:	**Michigan Recovery Systems Inc.** 36345 Van Born Road Romulus, MI 48174 Customer Service: (313) 326-3100	Hazardous and non-hazardous waste solvent recovery, recycling, and fuel blending. Drummed and bulk waste handling. Technology is is BDAT for many organic wastes.
__ LANDFILL:	**Wayne Disposal, Inc.** 49350 N. I-94 Service Drive Belleville, MI 4811 Customer Service: (313) 697-7830	Secure hazardous and non-hazardous waste landfill services. Drummed and bulk waste management.

II. GENERATING FACILITY INFORMATION
Generator Name Manitowoc Equipment Works
Plant Name _____
Address 2110 S. 26th Street
Manitowoc State WI Zip 54220
Contact Ken Engman Telephone (414) 683-7868 Fax (414) 683-7879
Alternate _____ Telephone ( ) _____ Fax ( ) _____

III. TCLP TESTING AND CERTIFICATION
Indicate which TCLP testing has been conducted. See instructions for options. For any testing not elected a signed certification must be provided.

TCLP REGULATORY ACTION LEVELS (mg/L)

Constituents		Testing Conducted	OR	Certification
		ZHE Constituents		
Volatile Organics	mg/L	YES	NO	
D018 Benzene	.5	<0.1		"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels." Signed _____
D019 Carbon Tetrachloride	.5	<0.1		
D021 Chlorobenzene	100	<0.1		
D022 Chloroform	6	<0.1		
D028 1,2-Dichloroethane	.5	<0.1		
D029 1,1-Dichloroethylene	.7	<0.1		
D035 Methyl Ethyl Ketone	200	<0.2		
D039 Tetrachloroethylene	.7	<0.1		
D040 Trichloroethylene	.5	<0.1		
D043 Vinyl Chloride	.2	<0.2		

Conventional Bottle Constituents

Metals	mg/L	YES	NO
04 Arsenic	5	0.011	
05 Barium	100	<0.10	
06 Cadmium	1	0.024	
07 Chromium	5	<0.05	
08 Lead	5	<0.10	
09 Mercury	.2	<0.0004	
10 Selenium	1	0.012	
11 Silver	5	<0.05	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Acid Extractables			
023 o-Cresol**	200	<0.1	
024 m-Cresol**	200	<0.1	
025 p-Cresol**	200	<0.1	
026 Cresol	200	<0.1	
037 Pentachlorophenol	100	<0.5	
041 2,4,5-Trichlorophenol	400	<0.1	
042 2,4,6-Trichlorophenol	2	<0.1	

"Based upon my knowledge** of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

if o,m and p Cresols cannot be differentiated use Total Cresol concentration.

Base Neutral Extractables			
027 1,4-Dichlorobenzene	7.5	<0.2	
030 2,4, Dinitrotoluene	.13	<0.1	
032 Hexachlorobenzene	.13	<0.1	
033 Hexachlorobutadiene	.5	<0.1	
034 Hexachloroethane	3	<0.1	
036 Nitrobenzene	2	<0.1	
038 Pyridine	5	<0.1	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Pesticides			
020 Chlordane	.03		X
012 Endrin	.02		X
031 Heptachlor (& its Hydroxide)	.008		X
013 Lindane	.4		X
014 Methoxychlor	10		X
015 Toxaphene	.5		X
Herbicides			
016 2,4-D	10		X
017 2,4,5-TP (Silvex)	1		X

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

I hereby authorize Envotech personnel to make necessary modifications and add I request supplemental information to this waste characterization report provided I am contacted to give verbal permission."
Signed _____
and

I certify that all information including attached information is complete and actual and is an accurate representation of the known and suspected hazards and state generator regulations, pertaining to the waste described here."
Signature _____ Printed Name Kenneth Engman Date 8/15/91

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter **and** established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

[X] **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

[ ] **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

[ ] **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

[ ] **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# WID980570014
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 S. 26th Street
Manitowoc, WI Zip 54220
Contact Person Ken Engman Telephone (414) 683-7868 Ext.
Alternative Contact Telephone ( ) Ext.

II. INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person Phillip Ditter Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ____ No
If Yes, list account number 1015 If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# WID982219529
Name E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person John Weber Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name Paint Line Sludge - Tank #3
2. Provide a detailed description of the process(es) generating this waste:
Iron Phosphate Waterwash Paint Line Sludge, Cleaning of Parts Prior to Painting

3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations ____ Yes X No
If Yes, List all applicable codes.

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☐ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)
If Yes, List all applicable codes.

5. Is this waste non hazardous under US EPA & Michigan Regulation? X Yes ____ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:
029L

7. Chemical Composition

	Range Min.		Max.	
Paint Solids	60	–	70	%
Metal Fines	1	–	2	%
Dirt	1	–	2	%
Water as Moisture	25	–	35	%
		–		%
		–		%
		–		%

NOTE: Total must be ≥ 100% in the Max. Column. Total 109 %

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? X Yes ____ No
If Yes, could these enter into the waste? ____ Yes X No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

				Actual			
Cyanide	____ No	X Yes	<10 PPM		____ Total	X Reactive
Sulfide	____ No	X Yes	<2 PPM		____ Total	X Reactive
PCB's	X No	____ Yes	____ PPM			
Dioxins/ Furans	X No	____ Yes	____ PPM			

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? ____ Yes X No
Describe: ____

2. Color Description (Note if Multicolored or Subject to Variation) Brown

3. Physical State @ 70°F
____ Dust or Powder X Solid ____ Sludge ____ Liquid ____ Multilayered ____ Single Phase
X Free Liquids may be associated with this waste

4. Water Content <35 %

5. TOC NT %

6. TOX None %

7. Density 13.3 lb./gal. (use lbs/gallon or lbs/yd^3)

8. pH Range ____ <2 ____ >2-4 ____ >4-9 ____ >9-12.4 ____ >12.5 Actual 5.3

9. Flash Pt. Range ____ < 90°F ____ ≥90°-140° ____ > 140°-200°F X >200°F Actual ____
Method: X Closed Cup ____ Pensky-Martens ____ Setaflash

). Does this waste meet any of the Characteristics listed below?

Reactive	____ Yes	X No	Pyrophoric	____ Yes	X No
Explosive	____ Yes	X No	Oxidizer	____ Yes	X No
Shock Sensitive	____ Yes	X No	Radioactive	____ Yes	X No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids _____ %
5. Chlorine _____ %
6. Sulfur _____ %

7. Total Metal Analysis	Actual
Arsenic	_____ ppm
Barium	_____ ppm
Cadmium	_____ ppm
Chromium	_____ ppm
Lead	_____ ppm
Mercury	_____ ppm
Nickel	_____ ppm
Zinc	_____ ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes _____ No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes _____ No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes _____ No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes _____ No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes _____ No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 _____ Yes _____ No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes _____ No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 _____ Yes _____ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name Non-Regulated Special Waste
2. Hazard Class _____ UN/NA# _____
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid X Drums
   Other _____
4. Shipping Volume per Month _____
5. Annual or Total Volume 1-2 Drums/ Semi-Annually One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein.

Name KENNETH ENGMAN (signature)

Title Q/W OPERATIONS MGR Date 8/19/91

Company MANITOWOC EQUIP. WORKS Phone 414-683-7868

TOXICITY CHARACTERISTIC REPORT

INSTRUCTIONS

Volatile Organics - These analyses must be run for any waste containing oils, or petroleum products or other organic constituents.

Metals - These analyses must be run for all wastes except commercial chemical products accompanied by a MSDS demonstrating no metal content.

Treatment Residues from TSDF's will require full TCLP analysis.

I. WASTE MANAGEMENT NEEDS

This waste is intended for (Check all that apply):

X	TREATMENT:	**Michigan Disposal Inc.** 49350 N. I-94 Service Drive Belleville, MI 48111 Customer Service: (313) 699-7120	Hazardous and non-hazardous waste stabilization of solids, semi-solids, slurries and liquids. Inorganic waste treatment to BDAT standards.
__	RECOVERY/ FUEL BLENDING:	**Michigan Recovery Systems Inc.** 36345 Van Born Road Romulus, MI 48174 Customer Service: (313) 326-3100	Hazardous and non-hazardous waste solvent recovery, recycling, and fuel blending. Drummed and bulk waste handling. Technology is is BDAT for many organic wastes.
__	LANDFILL:	**Wayne Disposal, Inc.** 49350 N. I-94 Service Drive Belleville, MI 4811 Customer Service: (313) 697-7830	Secure hazardous and non-hazardous waste landfill services. Drummed and bulk waste management.

II. GENERATING FACILITY INFORMATION

Generator Name Manitowoc Equipment Works
Plant Name _____
Address 2110 S. 26th Street
Manitowoc State WI Zip 54220
Contact Ken Engman Telephone (414) 683-7868 Fax (414) 683-7879
Alternate _____ Telephone ( ) _____ Fax ( ) _____

III. TCLP TESTING AND CERTIFICATION

Indicate which TCLP testing has been conducted. See instructions for options. For any testing not elected a signed certification must be provided.

TCLP REGULATORY ACTION LEVELS (mg/L)

Constituents		Testing Conducted	OR	Certification
		ZHE Constituents		
Volatile Organics	mg/L	YES	NO	
D018 Benzene	.5	<0.1	____	"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels." Signed _____
D019 Carbon Tetrachloride	.5	<0.1	____	
D021 Chlorobenzene	100	<0.1	____	
D022 Chloroform	6	<0.1	____	
D028 1,2-Dichloroethane	.5	<0.1	____	
D029 1,1-Dichloroethylene	.7	<0.1	____	
D035 Methyl Ethyl Ketone	200	<0.2	____	
D039 Tetrachloroethylene	.7	<0.1	____	
D040 Trichloroethylene	.5	<0.1	____	
D043 Vinyl Chloride	.2	<0.2	____	

Conventional Bottle Constituents

Metals	mg/L	YES	NO
004 Arsenic	5	<0.005	
00[illegible] Barium	100	<0.10	
006 Cadmium	1	<0.010	
007 Chromium	5	<0.05	
008 Lead	5	<0.10	
009 Mercury	.2	<0.0002	
010 Selenium	1	<0.010	
011 Silver	5	<0.05	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Acid Extractables			
023 o-Cresol**	200	<0.01	
024 m-Cresol**	200	<0.01	
025 p-Cresol**	200	<0.01	
026 Cresol	200	<0.01	
037 Pentachlorophenol	100	<0.5	
041 2,4,5-Trichlorophenol	400	<0.1	
042 2,4,6-Trichlorophenol	2	<0.1	

"Based upon my knowledge** of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

*if o,m and p Cresols cannot be differentiated use Total Cresol concentration.

Base Neutral Extractables			
027 1,4-Dichlorobenzene	7.5	<0.2	
030 2,4, Dinitrotoluene	.13	<0.1	
032 Hexachlorobenzene	.13	<0.1	
033 Hexachlorobutadiene	.5	<0.1	
034 Hexachloroethane	3	<0.1	
036 Nitrobenzene	2	<0.1	
03[illegible] Pyridine	5	<0.1	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Pesticides			
020 Chlordane	.03		X
012 Endrin	.02		X
031 Heptachlor (& its Hydroxide)	.008		X
013 Lindane	.4		X
014 Methoxychlor	10		X
015 Toxaphene	.5		X
Herbicides			
016 2,4-D	10		X
017 2,4,5-TP (Silvex)	1		X

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

I hereby authorize Envotech personnel to make necessary modifications and add or request supplemental information to this waste characterization report provided I am contacted to give verbal permission."
Signed _____
Title _____

I certify that all information including attached information is complete and accurate and is an accurate representation of the known and suspected hazards and waste generator regulations, pertaining to the waste described here."
Signature _____ Printed Name Kenneth Engman Date 8-15/9[illegible]

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter and established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

[X] **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

[ ] **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

[ ] **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

[ ] **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# WID980570014
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 S. 26th Street
Manitowoc, WI Zip 54220
Contact Person Ken Engman Telephone (414) 683-7868 Ext.
Alternative Contact Telephone ( ) Ext.

II. INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person Phillip Ditter Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ____ No
If Yes, list account number 1015 If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# WID982219529
Name E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person John Weber Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name Cyanide Filters
2. Provide a detailed description of the process(es) generating this waste:
Filtering a copper cyanide plating bath for plating parts.
3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations X Yes ____ No
If Yes, List all applicable codes.
F007

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☐ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)
If Yes, List all applicable codes.

5. Is this waste non hazardous under US EPA & Michigan Regulation? _____ Yes __X__ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:

7. Chemical Composition

	Range Min.		Max.	
Spun Fiber Filter Media	95	–	98	%
Dirt & Oils	1	–	2	%
Metal Fines	1	–	2	%
Plating Bath Residuals	0	–	1	%
Note: Plating Bath Solution Consists of the following:		–		%
Copper Cyanide 3-5%, Potassium Cyanide 1-3%,		–		%
Potassium Hydroxide 1-3%, Water 90-95%		–		%
	Total			%

NOTE: Total must be ≥ 100% in the Max. Column.

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? __X__ Yes _____ No
If Yes, could these enter into the waste? _____ Yes __X__ No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

			Actual			
Cyanide	_____ No	__X__ Yes	_____ PPM	_____ Total	85 ppm	Reactive
Sulfide	__X__ No	_____ Yes	<2 PPM	_____ Total	X	Reactive
PCB's	__X__ No	_____ Yes	_____ PPM			
Dioxins/ Furans	__X__ No	_____ Yes	_____ PPM			

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? _____ Yes _____ No
Describe: _____

2. Color Description (Note if Multicolored or Subject to Variation) Black

3. Physical State @ 70°F
_____ Dust or Powder __X__ Solid _____ Sludge _____ Liquid _____ Multilayered _____ Single Phase
_____ Free Liquids may be associated with this waste

4. Water Content _____ %

5. TOC _____ %

6. TOX _____ %

7. Density _____ (use lbs/gallon or lbs/yd^3)

8. pH Range _____ <2 _____ >2-4 _____ >4-9 _____ >9-12.4 _____ >12.5 Actual 10.5

9. Flash Pt. Range _____ < 90°F _____ ≥90°-140° _____ >140°-200°F __X__ >200°F Actual _____
Method: _____ Closed Cup _____ Pensky-Martens _____ Setaflash

10. Does this waste meet any of the Characteristics listed below?

Reactive	_____ Yes	__X__ No	Pyrophoric	_____ Yes	__X__ No
Explosive	_____ Yes	__X__ No	Oxidizer	_____ Yes	__X__ No
Shock Sensitive	_____ Yes	__X__ No	Radioactive	_____ Yes	__X__ No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids _____ %
5. Chlorine _____ %
6. Sulfur _____ %

7. Total Metal Analysis	Actual
Arsenic	_____ ppm
Barium	_____ ppm
Cadmium	_____ ppm
Chromium	_____ ppm
Lead	_____ ppm
Mercury	_____ ppm
Nickel	_____ ppm
Zinc	_____ ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes _____ No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes _____ No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes _____ No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes _____ No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes _____ No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 _____ Yes _____ No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes _____ No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 _____ Yes _____ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name Non-Regulated Special Waste
2. Hazard Class _____ UN/NA# _____
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid X Drums
   Other _____
4. Shipping Volume per Month _____
5. Annual or Total Volume 1-2 Drums/ Semi-Annually One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein.

Name Kenneth Engman (signature)

Title C/W Operations Plt Mgr Date 8/18/91

Company Manitowoc Equipment Work Phone 414-683-7868

TOXICITY CHARACTERISTIC REPORT

INSTRUCTIONS

V[illegible]atile Organics - These analyses must be run for any waste containing oils, c[illegible]er petroleum products or other organic constituents.

Metals - These analyses must be run for all wastes except commercial chemical products accompanied by a MSDS demonstrating no metal content.

Treatment Residues from TSDF's will require full TCLP analysis.

I. WASTE MANAGEMENT NEEDS

This waste is intended for (Check all that apply):

X	TREATMENT:	**Michigan Disposal Inc.** 49350 N. I-94 Service Drive Belleville, MI 48111 Customer Service: (313) 699-7120	Hazardous and non-hazardous waste stabilization of solids, semi-solids, slurries and liquids. Inorganic waste treatment to BDAT standards.
__	RECOVERY/ FUEL BLENDING:	**Michigan Recovery Systems Inc.** 36345 Van Born Road Romulus, MI 48174 Customer Service: (313) 326-3100	Hazardous and non-hazardous waste solvent recovery, recycling, and fuel blending. Drummed and bulk waste handling. Technology is is BDAT for many organic wastes.
__	LANDFILL:	**Wayne Disposal, Inc.** 49350 N. I-94 Service Drive Belleville, MI 4811 Customer Service: (313) 697-7830	Secure hazardous and non-hazardous waste landfill services. Drummed and bulk waste management.

II. GENERATING FACILITY INFORMATION

Generator Name Manitowoc Equipment Works
Plant Name _____
Address 2110 S. 26th Street
Manitowoc State WI Zip 54220
Contact Ken Engman Telephone (414) 683-7868 Fax (414) 683-7879
Alternate _____ Telephone ( ) _____ Fax ( ) _____

III. TCLP TESTING AND CERTIFICATION

Indicate which TCLP testing has been conducted. See instructions for options. For any testing not elected a signed certification must be provided.

TCLP REGULATORY ACTION LEVELS (mg/L)

Constituents		Testing Conducted		OR	Certification
		ZHE Constituents			
Volatile Organics	mg/L	YES	NO		
D018 Benzene	.5	<0.1			"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels." Signed _____
D019 Carbon Tetrachloride	.5	<0.1			
D021 Chlorobenzene	100	<0.1			
D022 Chloroform	6	<0.1			
D028 1,2-Dichloroethane	.5	<0.1			
[illegible] 9 1,1-Dichloroethylene	.7	<0.1			
D035 Methyl Ethyl Ketone	200	<0.2			
D039 Tetrachloroethylene	.7	<0.1			
D040 Trichloroethylene	.5	<0.1			
D043 Vinyl Chloride	.2	<0.2			

Conventional Bottle Constituents

Metals	mg/L	YES	NO
)004 Arsenic	5	0.015	
)0 Barium	100	<0.10	
)006 Cadmium	1	<0.010	
)007 Chromium	5	0.06	
)008 Lead	5	<0.10	
)009 Mercury	.2	<0.0002	
)010 Selenium	1	<0.010	
)011 Silver	5	<0.05	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed_____

Acid Extractables			
)023 o-Cresol**	200	<0.1	
)024 m-Cresol**	200	<0.1	
)025 p-Cresol**	200	<0.1	
)026 Cresol	200	<0.1	
)037 Pentachlorophenol	100	<0.5	
)041 2,4,5-Trichlorophenol	400	<0.1	
)042 2,4,6-Trichlorophenol	2	<0.1	

"Based upon my knowledge** of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed_____

**if o,m and p Cresols cannot be differentiated use Total Cresol concentration.

Base Neutral Extractables			
)027 1,4-Dichlorobenzene	7.5	<0.2	
)030 2,4, Dinitrotoluene	.13	<0.1	
)032 Hexachlorobenzene	.13	<0.1	
)033 Hexachlorobutadiene	.5	<0.1	
)034 Hexachloroethane	3	<0.1	
)0 Nitrobenzene	2	<0.1	
)0 Pyridine	5	<0.1	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed_____

Pesticides			
)020 Chlordane	.03		X
)012 Endrin	.02		X
)031 Heptachlor (& its Hydroxide)	.008		X
)013 Lindane	.4		X
)014 Methoxychlor	10		X
)015 Toxaphene	.5		X
Herbicides			
)016 2,4-D	10		X
)017 2,4,5-TP (Silvex)	1		X

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed_____

I hereby authorize Envotech personnel to make necessary modifications and add
r request supplemental information to this waste characterization report
rovided I am contacted to give verbal permission."
igned_____

nd

I certify that all information including attached information is complete and
actual and is an accurate representation of the known and suspected hazards
n aste generator regulations, pertaining to the waste described here."
ignature_____ Printed Name Kenneth Engman Date 8/15/91

WASTE PROFILE INFORMATION FORM

ENVIRITE CORPORATION

CUSTOMER INFORMATION:

Name of Generator MANITOWOC EQUIPMENT WORKS SIC 3585

Facility Address 2110 South 26th St MANITOWOC, WI 54220

Pickup Address SAME

Primary Contact Kenneth Engman Title W/W Treat Oper. Phone 414-683-7868

Technical Contact SAME Title Phone

Emergency Contact E+K Hazardous Waste Service After-hours Phone 1-800-688-4005

Parent Company THE MANITOWOC COMPANY

Generator EPA ID# WID980570014 Generator State ID# N/A

Generator Address for Invoicing ABOVE

WASTE INFORMATION:

Generator's Description/Identification of Waste RQ HAZARDOUS WASTE SOLID NOS ORM-E NA 9189 (F006) WASTEWATER SYSTEM SLUDGE

Physical State at 20°C (68°F) — *(Check one box.)* ☒ Solid ☐ Powder ☐ Sludge ☐ Liquid

Other Characteristics — *(Complete each blank.)*

BOD N/A ppm TOX N/A ppm Color BLACK, BLUE, GRAY, BROWN GREEN IN MIXTURES AND SHADES OF Percent Free Liquid 80

TOC N/A ppm Oils/Grease N/A ppm Percent Solids 19 Flash Point 200+ °F

Number of Phases 2 pH 8.5 to 11.5 SU.

Generator Storage Method — *(Check one box.)*

☐ Tank ☐ Surface Impoundment ☐ Bags ☐ Drums ☒ Roll Off ☐ Dump Trailer ☐ Other

Does this waste contain flammables? ☐ Yes ☒ No Comments

Does this waste have an obvious odor? ☐ Yes ☒ No If "yes," describe

Does this waste produce any explosive, combustible or toxic gases upon neutralization with lime? ☐ Yes ☒ No

Comments:

Waste Quantity:

Estimated Volume FOUR 20 C.Y ROLL-OFFS/YEAR Estimated Frequency 3 MONS.

SAMPLING: Sampling By Envirite Personnel

Type of Sampler — (Check one box.) ☐ Coliwasa ☐ Sludge Judge ☒ Auger ☐ Other

Is this a composite sample? ☒ Yes ☐ No If "yes," indicate how many samples: 4

Identify source of sample (e.g., lagoon, tank, etc.) Roll-off

SHADED AREA FOR ENVIRITE USE ONLY

STREAM NUMBER HS #477 **DATE NEEDED**

TREATMENT FACILITY **TSR**

PROCESS INFORMATION:

Please briefly describe the process which generates this waste. Include plating activity (i.e., nickel, chrome, copper), raw solutions and base metals being plated. (Attach additional sheets if necessary.)

(KEL PLATING ON COPPER PARTS - TREATMENT OF RINSE WASTEWATERS

Are other products used in this area which may contaminate the waste (i.e., cleaning solutions or any other chemicals used by maintenance personnel)? ☐ Yes ☒ No If "yes," identify material and attach copy of Material Safety Data Sheet if available.

Material: _____

Are paint stripping operations on site? ☒ Yes ☐ No PLASTIC MEDIA NOT ASSOC. WITH SYSTEM

Are cyanide plating operations on site? ☒ Yes ☐ No

HAZARDS INFORMATION:

Describe those hazards which you know or reasonably believe are associated with short-term or prolonged human exposure to this waste. Nondisclosure of information will be considered representation that you believe there are no adverse human health effects associated with exposure to this waste. Attach relevant documents as a part of your response if appropriate.

SEE ATTACHED MSDS FOR F006 WASTE

Is this waste an EPA RCRA Hazardous Waste as described under 40 CFR 261 and equivalent state regulations?
Yes ☐ No If "yes," please identify hazardous characteristics or constituents in the lists shown below.

Characteristic Hazardous Wastes

☐ D001 (Oxidizers)	☐ D004 (Arsenic)	☐ D007 (Chromium)	☐ D010 (Selenium)
☐ D002 (Corrosive)	☐ D005 (Barium)	☐ D008 (Lead)	☐ D011 (Silver)
☐ D003 (Reactive)	☐ D006 (Cadmium)	☐ D009 (Mercury)	☐ Other _____

Listed Hazardous Wastes

☒ F006	☐ F008	☐ F011	☐ K002	☐ K005	☐ K008
☐ F007	☐ F009	☐ F012	☐ K003	☐ K006	☐ K062
☐ F019	☐ Other _____		☐ K004	☐ K007	☐ Other _____

Is the waste subject to Land Disposal Restrictions (LDR) per 40 CFR 268 or its equivalent state regulations? ☒ Yes ☐ No

Does this waste require treatment to conform to Land Disposal Restrictions? ☒ Yes ☐ No

Per the LDR program's definition, the waste is a: ☒ Wastewater ☐ Nonwastewater
"Wastewaters" are wastes that contain less than 1% total organic carbon (TOC) and less than 1% total suspended solids (Nonfilterable Residues Test — Method No. 160.2 Methods for Chemical Analysis of Water and Wastes, EPA — 600/4-79-020, March 1983).
"Nonwastewaters" are those wastes that do not meet the definition of "Wastewaters."

Has EP Toxicity, TCLP or any other testing been done? ☒ Yes ☐ No If "yes," please attach copies of all reports covering the last six months. COPY SENT 2/19/91

If the waste is not classified as hazardous under federal regulations, is it regulated as a hazardous or special waste in the state where it is generated? ☐ Yes ☒ No If "yes," please list the state-specific waste codes that apply.

WASTE CONSTITUENTS:

If constituent is present, please give an estimate of range. If space is left blank, it will be assumed constituent is not present.

METALS

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
Aluminum	N/T	
Arsenic	0.52	
Barium	21.0	
Beryllium	N/T	
Boron	N/T	
Cadmium	3.1	
Chromium	2.6	
Chromium (+6)	N/T	
Copper	24,000	
Iron	N/T	
Lead	21	
Manganese	N/T	
Mercury	0.2	
Nickel	12,000	
Selenium	0.11	
Silver	3.9	
Tin	N/T	
Zinc	4400	
Other		

ANIONS

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
Chloride	N/T	
Sulfate	N/T	
Nitrate	N/T	
Flouride	N/T	
Phosphate	N/T	

CHELATING AGENTS

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
Ammonia	N/T	
Cyanide Total	N/T	
Cyanide Amenable	N/T	
Cyanide Leachable	N/T	
Other		

N/T NOT TESTED

VOLATILE ORGANIC COMPOUNDS

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
Acrylonitrile (vinyl cyanide)	N/T	
Benzene	<5.0	
Bis(chloromethyl) ether	N/T	
Methylene chloride	N/T	
Methylchlormethyl ether	N/T	
Methyl ethyl ketone	<10.0	
Tetrachloroethylene	N/T	
Trichloroethylene	N/T	
Vinyl chloride	<10.0	
Carbon tetrachloride	N/T	
Chloroform	<5.0	
Other		
Other		
Other		

SEMI-VOLATILE ORGANIC COMPOUNDS

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
1,2-Diphenylhydrazine	N/T	
1-Naphthylamine	N/T	
2-Naphthylamine	N/T	
Anthracene	N/T	
Benzidine	N/T	
Dioxins	N/T	
Ethyleneimine	N/T	
N-Nitrosodimethylamine	N/T	
p-Nitrosodiphenylamine	N/T	
Phenol	N/T	
Other		
Other		
Other		

GENERAL

	TOTAL CONCENTRATION Minimum ppm	Maximum ppm
Asbestos	N/T	
Carcinogens	N/T	
Herbicides	N/T	
PCBs	N/T	
Pesticides	N/T	
Radioactives	N/T	
Solvents	N/T	
Organometallic Compounds	N/T	
Other		
Other		
Other		

TRANSPORTATION INFORMATION:

Proper DOT Shipping Name RQ HAZARDOUS WASTE SOLID N.O.S ORM-E, NA9189 (F006)

D lazard Class ORM-E NA9189 (F006) DOT ~~UN~~/NA Number 9189

Will the temperature of the waste to be transported be greater than 110°F? ☐ Yes ☒ No Comments: _____

Is Envirite handling transportation? ☐ Yes ☒ No If "no," and you are aware of who will be transporting the waste, please complete the following information:

Transporter Name E + K Hazardous Waste Service, INC

Transporter EPA ID# WID 982219529 State Transporter ID# N/A

Transporter Contact N/A Phone 414-458-6030

After-hours Emergency Contact 1-800-688-4005 Phone _____

GENERATOR EMERGENCY RESPONSE PLAN:

Do you have a written emergency-response/spill-prevention plan in force? ☒ Yes ☐ No If "yes," is a copy available? ☒ Yes ☐ No

Do you have a spill-response team? ☐ Yes ☒ No

Are special precautions required at the time of pickup? ☐ Yes ☒ No If "yes," indicate precautions:

_____

_____

CERTIFICATIONS:

.tify that I have designated the location point(s) for sample collection and the sample accompanying this document is representative. In the event that I personally collected the sample, I have identified myself as both the sampler and witness in the spaces below. If I have not collected the sample, both the sampler and witness are correctly identified below.

Date of Sampling 7/26/91 Time of Sampling 9:17AM AM/PM

Sampler's Name Ron Lindberg

Title and Affiliation of Sampler Chemical operator

Sampler's Signature Ron Lindberg

Witness's Name _____

Title and Affiliation of Witness _____

Witness's Signature _____

I hereby avow that any pertinent information that is known by the generator concerning possible hazards has been disclosed in the information contained herein and attached to this form. I confirm that, to the best of my knowledge, all statements and attachments are correct and accurate representations of this waste material.

Signature [signature] Title W/W TREAT OPER

Name Kenneth Engman Date 8/5/91

All information submitted on this form and its attachments will be kept confidential within the limits of existing environmental laws and regulations. We suggest that you retain a copy of this form and its attachments for your records.

Recycled Paper

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter **and** established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

☒ **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

☐ **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

☐ **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

☐ **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# WID980570014
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 S. 26th Street
Manitowoc, WI Zip 54220
Contact Person Ken Engman Telephone (414) 683-7868 Ext.
Alternative Contact Telephone ( ) Ext.

II. INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person Phillip Ditter Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ____ No
If Yes, list account number 1015 If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# WID982219529
Name E&K Hazardous Waste Services, Inc.
Address 2905 Paine Ave., P.O. Box 1249
Sheboygan, WI Zip 53082-1249
Contact Person John Weber Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name Nickel Filters
2. Provide a detailed description of the process(es) generating this waste:
Filtering Electroless Nickel Plating Bath

3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations ____ Yes X No
If Yes, List all applicable codes.

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☐ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)
If Yes, List all applicable codes.

5. Is this waste non hazardous under US EPA & Michigan Regulation? X Yes ____ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:
004L

7. Chemical Composition

	Range Min.		Max.	
Spun Fiber Filters & Cloth Filter Bags	45	–	55	%
Dirt & Oil	1	–	3	%
Plating Bath Residuals	45	–	55	%
Note: Solution running through filters consists of the following:				%
Nickel Sulfamate 2-4%, Sulfamic Acid 1-3%,		–		%
Boric Acid 1-3%, Water 95-98%		–		%
		–		%

NOTE: Total must be ≥ 100% in the Max. Column. Total ____ %

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? X Yes ____ No
If Yes, could these enter into the waste? ____ Yes X No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

				Actual			
Cyanide	____ No	X Yes	<10 PPM	____ Total	X Reactive
Sulfide	____ No	X Yes	4 PPM	____ Total	X Reactive
PCB's	X No	____ Yes	____ PPM		
Dioxins/ Furans	X No	____ Yes	____ PPM		

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? ____ Yes X No
Describe: ____

2. Color Description (Note if Multicolored or Subject to Variation) Black

3. Physical State @ 70°F
____ Dust or Powder X Solid ____ Sludge X Liquid X Multilayered ____ Single Phase
X Free Liquids may be associated with this waste

4. Water Content <55 %

5. TOC NT %

6. TOX None %

7. Density ____ (use lbs/gallon or lbs/yd^3)

8. pH Range ____ < 2 ____ > 2-4 ____ > 4-9 ____ > 9-12.4 ____ > 12.5 Actual 4.8

9. Flash Pt. Range ____ < 90°F ____ ≥ 90°-140° ____ > 140°-200°F X > 200°F Actual ____
Method: X Closed Cup ____ Pensky-Martens ____ Setaflash

10. Does this waste meet any of the Characteristics listed below?

Reactive	____ Yes	X No	Pyrophoric	____ Yes	X No
Explosive	____ Yes	X No	Oxidizer	____ Yes	X No
Shock Sensitive	____ Yes	X No	Radioactive	____ Yes	X No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids _____ %
5. Chlorine _____ %
6. Sulfur _____ %

7. Total Metal Analysis	Actual
Arsenic	_____ ppm
Barium	_____ ppm
Cadmium	_____ ppm
Chromium	_____ ppm
Lead	_____ ppm
Mercury	_____ ppm
Nickel	_____ ppm
Zinc	_____ ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes _____ No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes _____ No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes _____ No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes _____ No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes _____ No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 _____ Yes _____ No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes _____ No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 _____ Yes _____ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name Non-Regulated Special Waste
2. Hazard Class _____ UN/NA# _____
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid X Drums
   Other _____
4. Shipping Volume per Month _____
5. Annual or Total Volume 1-2 Drums/ Semi-Annually One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein.

Name Kenneth Engman _____ (signature)

Title W/W Operations Pt. Mgr. Date 8/15/91

Company Manitowoc Equip. Works Phone 414-683-2868

TOXICITY CHARACTERISTIC REPORT

INSTRUCTIONS

Volatile Organics - These analyses must be run for any waste containing oils, or petroleum products or other organic constituents.

Metals - These analyses must be run for all wastes except commercial chemical products accompanied by a MSDS demonstrating no metal content.

Treatment Residues from TSDF's will require full TCLP analysis.

I. WASTE MANAGEMENT NEEDS
This waste is intended for (Check all that apply):

X TREATMENT:	**Michigan Disposal Inc.** 49350 N. I-94 Service Drive Belleville, MI 48111 Customer Service: (313) 699-7120	Hazardous and non-hazardous waste stabilization of solids, semi-solids, slurries and liquids. Inorganic waste treatment to BDAT standards.
__ RECOVERY/ FUEL BLENDING:	**Michigan Recovery Systems Inc.** 36345 Van Born Road Romulus, MI 48174 Customer Service: (313) 326-3100	Hazardous and non-hazardous waste solvent recovery, recycling, and fuel blending. Drummed and bulk waste handling. Technology is is BDAT for many organic wastes.
__ LANDFILL:	**Wayne Disposal, Inc.** 49350 N. I-94 Service Drive Belleville, MI 4811 Customer Service: (313) 697-7830	Secure hazardous and non-hazardous waste landfill services. Drummed and bulk waste management.

II. GENERATING FACILITY INFORMATION
Generator Name Manitowoc Equipment Works
Plant Name _____
Address 2110 S. 26th Street
Manitowoc State WI Zip 54220
Contact Ken Engman Telephone (414) 683-7868 Fax (414) 683-7879
Alternate _____ Telephone ( ) _____ Fax ( ) _____

III. TCLP TESTING AND CERTIFICATION
Indicate which TCLP testing has been conducted. See instructions for options. For any testing not elected a signed certification must be provided.

TCLP REGULATORY ACTION LEVELS (mg/L)

Constituents		Testing Conducted		OR	Certification
		ZHE Constituents			
Volatile Organics	mg/L	YES	NO		
D018 Benzene	.5	<0.1			"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels." Signed _____
D019 Carbon Tetrachloride	.5	<0.1			
D021 Chlorobenzene	100	<0.1			
D022 Chloroform	6	<0.1			
D028 1,2-Dichloroethane	.5	<0.1			
D029 1,1-Dichloroethylene	.7	<0.1			
D035 Methyl Ethyl Ketone	200	<0.2			
D039 Tetrachloroethylene	.7	<0.1			
D040 Trichloroethylene	.5	0.81			
D043 Vinyl Chloride	.2	<0.2			

Conventional Bottle Constituents

Metals	mg/L	YES	NO
D004 Arsenic	5	1.4	
D0 Barium	100	0.62	
D006 Cadmium	1	<0.010	
D007 Chromium	5	0.07	
D008 Lead	5	1.0	
D009 Mercury	.2	<0.001	
D010 Selenium	1	<0.010	
D011 Silver	5	<0.05	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Acid Extractables			
D023 o-Cresol**	200	<0.1	
D024 m-Cresol**	200	<0.1	
D025 p-Cresol**	200	<0.1	
D026 Cresol	200	<0.1	
D037 Pentachlorophenol	100	<0.5	
D041 2,4,5-Trichlorophenol	400	<0.1	
D042 2,4,6-Trichlorophenol	2	<0.1	

"Based upon my knowledge** of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

**if o,m and p Cresols cannot be differentiated use Total Cresol concentration.

Base Neutral Extractables			
D027 1,4-Dichlorobenzene	7.5	<0.2	
D030 2,4, Dinitrotoluene	.13	<0.1	
D032 Hexachlorobenzene	.13	<0.1	
D033 Hexachlorobutadiene	.5	<0.1	
D034 Hexachloroethane	3	<0.1	
D0[illegible] Nitrobenzene	2	<0.1	
D0[illegible] Pyridine	5	<0.1	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Pesticides			
D020 Chlordane	.03		X
D012 Endrin	.02		X
D031 Heptachlor (& its Hydroxide)	.008		X
D013 Lindane	.4		X
D014 Methoxychlor	10		X
D015 Toxaphene	.5		X
Herbicides			
D016 2,4-D	10		X
D017 2,4,5-TP (Silvex)	1		X

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

"I hereby authorize Envotech personnel to make necessary modifications and add or request supplemental information to this waste characterization report provided I am contacted to give verbal permission."
Signed _____

and

"I certify that all information including attached information is complete and factual and is an accurate representation of the known and suspected hazards in waste generator regulations, pertaining to the waste described here."
Signature _____ Printed Name KENNETH ENGMAN Date 8/15/91

Waste Management of North America
GENERATOR'S SPECIAL WASTE PROFILE SHEET
TYPE A Waste

PLEASE PRINT IN INK OR TYPE

☐ WMA 154224
Waste Profile Sheet Code

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For WMNA Use Only)

Renewal Date of Service Agreement: **WMNA Sales Rep#:**

A. WHERE IS THE WASTE GENERATED?

1. Generator Name: Manitowoc Equipment Works
2. Facility Address (site of waste generation): 2110 S. 26th Street
3. Generator City, State/Province: Manitowoc, WI 4. Zip/Postal Code: 54220
5. Generator USEPA/Federal ID: WID980570014
6. Generator State/Province ID:
7. Technical Contact: Ken Engman 8. Phone: (414) 683 - 7868

B. WHERE ARE WASTE MANAGEMENT, INC. INVOICES SENT?

1. ☐ Generating Facility (A, above), or
2. Company Name: E&K Hazardous Waste Services, Inc. 3. Phone: (414) 458 - 6030
4. Address: 2905 Paine Ave., P.O. Box 1249
5. Generator City, State/Province: Sheboygan, WI 6. Zip/Postal Code: 53082-1249

C. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Name of Waste: Plastic Media
2. Process Generating Waste: Plastic Blasting Media Used To Strip Painted Parts
3. Special Handling Instructions:

4. Color	5. Does the waste have a strong incidental odor?	6. Physical State @ 70°F/21°C:	7. Layers	8. Specific Gravity:	9. Free Liquids:
Gray	☒ No ☐ Yes if so, describe:	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other:	☐ Multi-layered ☐ Bi-layered ☒ Single Phased	Range 1.88	☐ Yes ☒ No Volume: %

10. pH: ☐ ≤ 2 ☐ > 2-4 ☒ 4-7 ☐ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range ☐ NA

11. Flash Point: ☐ None ☐ <140°F/60°C ☐ 140°-199°F/60°-83°C ☒ ≥ 200°F/93°C ☐ Closed Cup ☐ Open Cup

D. TRANSPORTATION INFORMATION

1. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Sludge ☒ Bulk Solid ☐ Drum/Box ☐ Other
2. Annual Amount/Units: 1-3 cubic yards
3. Supplemental Information:

4. Is this a DOT hazardous material? ☒ No ☐ Yes (If so, complete 5, 6 &7) 5. Hazard Class/ID #:
6. Reportable Quantity/ Units (lb/kg): 7. Shipping Name:

☒ Check this box if additional information is attached.

Turn Page and Complete Side 2

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Waste Management of North America
GENERATOR'S SPECIAL WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

E. CHEMICAL COMPOSITION

1.

	RANGE MIN.-MAX.
Plastic Blasting Media	80 - 95 %
Paint Chips & Powder	5 - 15 %
Dirt	2 - 5 %
	- %
	- %
	- %
	- %
	- %
	- %
	- %
	- %
	- %

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. Total: _____ %

2. Does this waste contain any of the following (provide concentration if known):

	NO or	LESS THAN or	ACTUAL
PCB's	☒	☐ <50 ppm	____ ppm
Cyanides	☐	☐ <50 ppm	<10 ppm
Sulfides	☐	☐ <50ppm	<2 ppm
Phenolics	☐	☐ <50 ppm	10 ppm

F. METALS

1. Does this waste contain any of the following metals (provide concentration if known):

Arsenic	☐<5	or 0.015 ppm	Barium	☐<100	or 2.0 ppm	Cadmium	☐ <1	or <0.010 ppm
Chromium	☐<5	or <0.05 ppm	Lead	☐<5	or 0.21 ppm	Mercury	☐ <0.2	or 0.0009 ppm
Selenium	☐<1	or <0.010 ppm	Silver	☐<5	or <0.05 ppm	Copper	☐	0.06 ppm
Nickel	☐	2.1 ppm	Zinc	☐	13 ppm			____ ppm

2. Indicate method used to determine concentration (if provided): ☐ EP TOX ☒ TCLP, or ☐ Total

G. GENERATOR CERTIFICATION

By signing this profile sheet, the generator certifies that unless clearly stated above or in attachments:

1. This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
2. This waste does not contain regulated quantities of PCB's (Polychlorinated Biphenyls).
3. This sheet and its attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.
4. The Contractor's Definition of Special Waste (Form WMNA 0038 AD) has been read, signed and attached.

5. Signature

6. Title: w/w OPERATIONS MT. MGR

7. Name (Type or Print): KENNETH ENGMAN

8. Date: 8/15/91

WASTE MANAGEMENT OF NORTH AMERICA

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE

WMA154224

Waste Profile Sheet Code

(ed area for WMNA use only) WMNA Sales Rep. #:

This completed form must be returned, with the representative sample, to:

Ridgeview Recycling & Disposal Facility
P.O. Box 227
Whitelaw, WI 54247-0227

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Waste Management of North America (WMNA) can accept the Special Waste described in the Generator's Special Waste Profile Sheet referenced above, you must supply a representative sample of the waste, or sign Part E below certifying that analytical data presented to Waste Management were derived from testing of a representative sample. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in Federal, State or Provincial Regulations. If you collect a representative sample of your waste, apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions, please refer to the instructions for this form, or contact your WMNA sales representative.

A. SAMPLING METHOD (Indicate the method used and sign line 5 in Section C to certify a representative sample was taken)

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I or equivalent Canadian rules.
2. ☒ I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above by an equivalent method.

B. SAMPLING SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

Floor

C. REPRESENTATIVE SAMPLE CERTIFICATION AND SAMPLE LABEL (COMPLETE LABEL BEFORE REMOVING)

1. Waste Profile Sheet Code: WMA154224
2. [redacted] Generator's Name: Manitowoc Equipment Works
3. [redacted] Name of Waste: Plastic Media
4. [redacted] Sample Hour/Date: 9:40 A.M. 5/15/91
5. [redacted] Sampler's Signature:

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: James Miller
7. Sampler's Title: Field Technician
8. Sampler's Employer (if other than generator, see D. below): E&K Hazardous Waste Services, Inc.

D. WITNESS VERIFICATION (if required) In most circumstances the customer will obtain the sample. However, in those cases in which WMNA or another contractor obtains the sample, one of the customer's employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: [signature]
2. Witness' Name: Kenneth Engman
3. Witness' Title: W/W OPERATIONS PLT MGR
4. Witness' Employer: Manitowoc Equipment Works
5. Date: 8/15/91

REPRESENTATIVE DATA CERTIFICATION (Complete Parts A, B, & C to the extent possible)

By signing below the customer is certifying that:
The analytical data presented to Waste Management of North America were derived from testing of a representative sample taken in accordance with one of the methods listed in Part A of this form.

[signature]
Signature

W/W OPERATIONS PLT. MGR
Title

Kenneth Engman
Name

8/15/91
Date

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WASTE MANAGEMENT OF NORTH AMERICA

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE INSTRUCTIONS

PART A. SAMPLING METHOD
Check the sampling method employed and sign line 5 of section C.

Some Special Wastes require analytical data to determine their chemical composition, regulatory status, and if they are acceptable for transportation, treatment or disposal. This form is used to certify that a representative sample was collected for testing by Waste Management of North America (WMNA) or to certify that analytical data being presented to WMNA were derived from testing of a representative sample. The sample should be collected in accordance with "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW846, USEPA, and/or 40CFR261-Appendix I, or approved Canadian equivalent methods. A suitable sample container for most wastes is a wide mouth glass bottle with a plastic cap having a non-reactive liner. Plastic containers are recommended for strong caustics or fluorides. Fill to approximately 90% of capacity to allow for expansion during transportation. The peel off label on this form must be completed prior to removal from the form. The label must be attached to the sample container, not the shipping container.

The sample must be packed and shipped in accordance with U.S. DOT or Canadian equivalent regulations and any specific requirements imposed by the carrier. Improperly packaged samples may be disposed upon receipt.

PART B. SAMPLE SOURCE
Describe exactly where the sample was taken (e.g., conveyor, drum, lagoon, pipe, pit, pond, tank, vat).

PART C. SAMPLE LABEL
THE SAMPLE LABEL MUST BE COMPLETED BEFORE IT IS REMOVED FROM THIS FORM.

Apply the completed peel off label to the container which actually holds the sample, not to the shipping container.

1. WASTE PROFILE SHEET CODE - Enter the code from the Generator's Special Waste Profile Sheet for this waste. This Certification and its peel off label must be used to identify **ONLY** the sample of the Special Waste described in the Generator's Special Waste Profile Sheet bearing this code.

2. GENERATOR'S NAME - Enter the name of the facility where the waste is generated.

3. NAME OF WASTE - Enter a name which is generally descriptive of this waste (e.g., paint sludge, diesel oil contaminated dirt, wastewater treatment sludge). This name should be the same as Section C on the Generator's Special Waste Profile Sheet.

4. SAMPLE HOUR/DATE - Enter the hour and date the sample was collected.

5. SAMPLER'S SIGNATURE - The sampler must sign in the space provided.

6. PRINT SAMPLER'S NAME - Enter the sampler's name.

7. SAMPLER'S TITLE - Enter the sampler's title.

8. SAMPLER'S EMPLOYER (If other than generator see D. Below) - Enter the sampler's employer's name.

Remove the completed peel off label and affix it to the sample container at the time of sampling. If this label is lost or destroyed, the sample must be labeled with equivalent information, including the Waste Profile Sheet Code. If the Certification of Representative Sample Form is lost or destroyed, please contact your WMNA Sales Representative to obtain a new one.

PART D. WITNESS VERIFICATION (if required):
If a Waste Management of North America employee or other contractor obtains the sample on your site, then one of your employees must direct the contractor's employee to the sample source and witness the sampling. Your employee must also provide the information requested in PART D.

1. WITNESS' SIGNATURE - Sign in the space provided.
2. WITNESS' NAME - Print the name of the customer's employee who witnessed the sampling.
3. WITNESS' TITLE - Enter the witness' title.
4. WITNESS' EMPLOYER - Enter the witness' employer's name.
5. DATE - Enter the date the sampling event was witnessed.

PART E. REPRESENTATIVE DATA CERTIFICATION
If the customer is presenting their own analytical data to WMNA, they must sign this section, certifying that the analytical data presented were derived from testing of a representative sample taken in accordance with one of the methods listed in Part A. Parts B & C should also be completed to the extent possible.

GENERATOR DECLARATION LETTER

By signing this document, I Ken Engman/Manitowoc Equipment Works
(Generator's Name)
hereby certify that the waste stream as described on Waste Management Generator's Waste Material Profile Sheet # WMA154224 does not contain the compounds identified in the groupings below. I reviewed the compounds in each group, and marked each box if the compounds are not present.

Pesticide/Herbicide Compounds (Pursuant to EPA Hazardous Waste Regulations)

[X] The pesticides and herbicides: Chlordane, Endrin, Heptachlor (and its hydroxide), Lindane, Methoxychlor, Toxaphene, 2,4-D, 2,4,5-TP (Silvex).

F-500 Hazardous Waste Listing (Pursuant to Wisconsin Hazardous Waste Regulations)

[X] The halogenated compounds: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, ortho-dichlorobenzene, dichlorodifluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichlorofluoromethane, 1,1-dichloroethylene, and 1,2-dichloroethylene at greater than 1% (10,000 ppm) total solvent concentration. This listing includes any combination of the above named halogenated compounds where the total concentration of the sum of the concentrations of the individual compounds exceeds 1% or 10,000 ppm on a weight to weight basis.

Kenneth Engman
Generator's Signature

W/C OPERATIONS PLT MGR
Title

8/15/97
Date

RLP/del/120501RP

CONTRACTOR'S DEFINITION OF SPECIAL WASTE

"Special Waste" means Type A or Type B Special wastes as defined below.

WMA154224
WASTE PROFILE CODE

"Type A Special Waste" means any **waste, from a commercial or industrial activity** meeting any of the following descriptions.

__ a. A containerized waste (e.g., a drum, portable tank, lugger box, roll-off box, pail, bulk tanker, etc.) listed in b.-g. below.
__ b. A waste containing free liquids.
__ c. A sludge waste.
X d. A waste from an industrial process.
__ e. A waste from a pollution control process.
__ f. Residue and debris from the cleanup of a spill of a chemical substance or commercial product or a waste listed in a.-e. or g.
__ g. Contaminated residuals, or articles from the cleanup of a facility generating, storing, treating, recycling, or disposing of wastes listed in a.-f.

Incidental Amounts of Special Waste

The Contractor recognizes that many customers will produce some "Type B Special Waste," as defined below. Incidental quantities of "Type B Special Waste," do not require a Generator's Type B Special Waste Profile Sheet (Form WMNA-0089B) to be signed by the customer. However, the customer must identify the type and amount of Type B Special Wastes which will be provided to the Contractor in incidental amounts by completing the box in the lower right corner.

"Type B Special Waste" means any waste from a commercial or industrial activity meeting the descriptions which follow:

__ a. **Friable asbestos waste from building demolition or cleaning;** wall board, wall spray coverings, pipe insulation, etc. Nonfriable asbestos is not a special waste unless it has been processed, handled or used in such a way that asbestos fibers may be freely released. Asbestos-bearing industrial process waste is a "Type A Special Waste.

__ b. **Commercial products or chemicals which are off-specification, outdated, unused or banned.** Out-dated or off-specification, uncontaminated food or beverage products in original consumer containers are not included in this category, however, containers which once held commercial products or chemicals are included unless the container is empty. A container is empty when:

All wastes have been removed that can be removed using the practices commonly employed to remove materials from the type of container, e.g., pouring, pumping or aspirating, and an end has been removed (for containers in excess of 25 gallons), and no more than 1 inch (2.54 centimeters) of residue remains on the bottom of the container or inner liner, or no more than 3% by weight of the total capacity of the container remains in the container (containers $\leq$ 110 gallons), or no more than 0.3% by weight of the total capacity of the container remains in the container (containers > 110 gallons.) Containers which once held **ACUTELY HAZARDOUS WASTES** must be triple rinsed with an appropriate solvent or cleaned by an equivalent method. Containers which once held substances regulated under the Federal Insecticide, Fungicide, and Rodenticide Act must be empty according to label instructions or triple rinsed.

__ c. **Untreated bio-medical waste - Any waste capable of inducing infection due to contamination with infectious agents from a bio-medical source including but not limited to a medical practitioner, hospital, medical clinic, nursing home, university medical laboratory, mortuary, taxidermist, veterinarian, veterinary hospital or animal testing laboratory.** Sharps from these sources must be rendered harmless or placed in needle puncture proof containers. Residue from incineration of infectious wastes is a "Type A Special Waste."

__ d. **Treated bio-medical wastes - Any wastes from a bio-medical source including but not limited to a hospital, medical clinic, nursing home, medical practitioner, mortuary, taxidermist, veterinarian hospital, animal testing laboratory, or university medical laboratory which has been autoclaved or otherwise heat treated or sterilized so that it is no longer capable of inducing infection.** Any sharps from these sources must be rendered harmless or placed in needle puncture-proof containers.

__ e. **Liquids and sludges** from septic tanks, food service grease traps, or washwater and wastewaters from commercial laundries, laundromats and car washes unless these wastes are managed at commercial or public treatment works.

__ f. **Chemical-containing equipment removed from service.** Examples: filters, cathode ray tubes, lab equipment, acetylene tanks, fluorescent light tubes, etc.

__ g. **Waste produced from the demolition or dismantling of industrial process equipment or facilities contaminated with chemicals from the industrial process** Chemicals or wastes removed or drained from such equipment or facility are "Type A Special Wastes."

CUSTOMER ACKNOWLEDGES THAT HE HAS READ THE FOREGOING DEFINITION AND HAS IDENTIFIED THE TYPES OF SPECIAL WASTES GENERATED, IF ANY, BY CHECKING THE APPLICABLE CATEGORIES ABOVE.

MANITOWOC EQUIPMENT WORKS
CUSTOMER

AUTHORIZED SIGNATURE

DATE 8/15/91

LIST TYPE B WASTE CATEGORY AND AMOUNTS:

General Manager of WMNA Division concurs that the above amounts of "Type B Special Wastes" are incidental to the load.
Signature:

Form WMNA-0038AD (2/89) Waste Management of North America
White - WMNA Division Canary - Customer
Revised 5/90

Printed on recycled paper

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter and established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

☒ **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

☐ **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

☐ **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

☐ **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# WID980570014
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 South 26th Street
Manitowoc, Wisconsin Zip 54220
Contact Person Ken Engman Telephone (414) ~~682-0161~~ 683-7868 Ext.
Alternative Contact Dennis Klingbeil Telephone (414) 683-6523 Ext.

II. INVOICING INFORMATION

Customer E&K Hazardous Waste Services, Inc.
Address 2905 Paine Avenue, P.O. Box 1249
Sheboygan, Wisconsin Zip 53082-1249
Contact Person Phillip Ditter Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ____ No
If Yes, list account number 1015 If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# WID982219529
Name E&K Hazardous Waste Services, Inc.
Address 2905 Paine Avenue, P.O. Box 1249
Sheboygan, Wisconsin Zip 53082-1249
Contact Person Kathy Balnaitis Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name F006 Filter Paper
2. Provide a detailed description of the process(es) generating this waste:
Filtering of Waste Water Treatment Sludge from Copper and Nickel Plating Line
3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations X Yes ____ No
If Yes, List all applicable codes.
F006

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☐ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)
If Yes, List all applicable codes.

5. Is this waste non hazardous under US EPA & Michigan Regulation? _____ Yes __X__ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:

7. Chemical Composition

	Range Min.		Max.	
Filter Paper	70	–	90	%
F006 Sludge	10	–	30	%
Water	0	–	5	%
		–		%
		–		%
		–		%
		–		%

NOTE: Total must be ≥ 100% in the Max. Column. Total _____ %

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? __X__ Yes _____ No
If Yes, could these enter into the waste? _____ Yes __X__ No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

				Actual			
Cyanide	_____ No	__X__ Yes	<10	PPM	_____ Total	__X__ Reactive
Sulfide	_____ No	__X__ Yes	<2	PPM	_____ Total	__X__ Reactive
PCB's	__X__ No	_____ Yes	_____	PPM		
Dioxins/ Furans	__X__ No	_____ Yes	_____	PPM		

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? _____ Yes __X__ No
Describe: _____

2. Color Description (Note if Multicolored or Subject to Variation) Black

3. Physical State @ 70°F
_____ Dust or Powder __X__ Solid _____ Sludge _____ Liquid _____ Multilayered __X__ Single Phase
_____ Free Liquids may be associated with this waste

4. Water Content 0-5 %

5. TOC NT %

6. TOX <0.1 %

7. Density 8.75 lb/gal (use lbs/gallon or lbs/yd^3)

8. pH Range _____ <2 _____ >2-4 __X__ >4-9 _____ >9-12.4 _____ >12.5 Actual 8.5

9. Flash Pt. Range _____ < 90°F _____ ≥90°-140° _____ >140°-200°F __X__ >200°F Actual _____
Method: __X__ Closed Cup _____ Pensky-Martens _____ Setaflash

). Does this waste meet any of the Characteristics listed below?

Reactive	_____ Yes	__X__ No	Pyrophoric	_____ Yes	__X__ No
Explosive	_____ Yes	__X__ No	Oxidizer	_____ Yes	__X__ No
Shock Sensitive	_____ Yes	__X__ No	Radioactive	_____ Yes	__X__ No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids 19 %
5. Chlorine 0.07 %
6. Sulfur _____ %

7. Total Metal Analysis

	Actual
Arsenic	0.52 ppm
Barium	21 ppm
Cadmium	3.1 ppm
Chromium	2.6 ppm
Lead	21 ppm
Mercury	0.2 ppm
Nickel	12000 ppm
Zinc	4400 ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes X No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes X No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes X No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes X No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes X No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 _____ Yes X No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes X No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 X Yes _____ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name RQ Hazardous Waste Solid, n.o.s.
2. Hazard Class ORM-E UN/NA# NA9189
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid 55 Gallon Drums
   Other _____
4. Shipping Volume per Month 2-3 Drums/Quarterly
5. Annual or Total Volume _____ One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein.

Name Kenneth Engman

Title W/W Treatment Specialist Date 2/19/91 (signature)

Company Manitowoc Equipment Works Phone 414-683-7868

TOXICITY CHARACTERISTIC REPORT

INSTRUCTIONS

Volatile Organics - These analyses must be run for any waste containing oils, er petroleum products or other organic constituents.

Metals - These analyses must be run for all wastes except commercial chemical products accompanied by a MSDS demonstrating no metal content.

Treatment Residues from TSDF's will require full TCLP analysis.

I. WASTE MANAGEMENT NEEDS
This waste is intended for (Check all that apply):

X TREATMENT:	Michigan Disposal Inc. 49350 N. I-94 Service Drive Belleville, MI 48111 Customer Service: (313) 699-7120	Hazardous and non-hazardous wast stabilization of solids, semi-solids, slurries and liquids. Inorganic waste treatment to BDAT standards.
__ RECOVERY/ FUEL BLENDING:	Michigan Recovery Systems Inc. 36345 Van Born Road Romulus, MI 48174 Customer Service: (313) 326-3100	Hazardous and non-hazardous waste solvent recovery, recyclin and fuel blending. Drummed and bulk waste handling. Technology is BDAT for many organic wastes.
__ LANDFILL:	Wayne Disposal, Inc. 49350 N. I-94 Service Drive Belleville, MI 4811 Customer Service: (313) 697-7830	Secure hazardous and non-hazardo waste landfill services. Drummed and bulk waste management.

II. GENERATING FACILITY INFORMATION
Generator Name Manitowoc Equipment Works
Plant Name
Address 2110 South 26th Street
Manitowoc State WI Zip 54220
Contact Ken Engman Telephone (414) 682-0161 Fax ( )
Alternate Dennis Klingbeil Telephone (414) 683-6523 Fax ( )

III. TCLP TESTING AND CERTIFICATION
Indicate which TCLP testing has been conducted. See instructions for options. For any testing not elected a signed certification must be provided.

TCLP REGULATORY ACTION LEVELS (mg/L)

Constituents		Testing Conducted		OR	Certification
		ZHE Constituents			
Volatile Organics	mg/L	YES	NO		
D018 Benzene	.5	<.005			"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels." Signed
D019 Carbon Tetrachloride	.5	<.005			
D021 Chlorobenzene	100	<.005			
D022 Chloroform	6	<.005			
D028 1,2-Dichloroethane	.5	<.005			
D[illegible] 1,1-Dichloroethylene	.7	<.005			
D[illegible] Methyl Ethyl Ketone	200	<.010			
D039 Tetrachloroethylene	.7	<.005			
D040 Trichloroethylene	.5	<.005			
D043 Vinyl Chloride	.2	<.010			

Conventional Bottle Constituents

Metals	mg/L	YES	NO
)00 Arsenic	5	<0.010	
)0 Barium	100	1.0	
)006 Cadmium	1	0.042	
)007 Chromium	5	0.27	
)008 Lead	5	<0.5	
)009 Mercury	.2	0.002	
)010 Selenium	1	<0.010	
)011 Silver	5	<0.05	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Acid Extractables			
)023 o-Cresol**	200	0	
)024 m-Cresol**	200	0	
)025 p-Cresol**	200	0	
)026 Cresol	200	<.010	
)037 Pentachlorophenol	100	<.050	
)041 2,4,5-Trichlorophenol	400	<.010	
)042 2,4,6-Trichlorophenol	2	<.010	

"Based upon my knowledge** of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

*if o,m and p Cresols cannot be differentiated use Total Cresol concentration.

Base Neutral Extractables			
027 1,4-Dichlorobenzene	7.5	<.010	
030 2,4, Dinitrotoluene	.13	<.010	
032 Hexachlorobenzene	.13	<.010	
033 Hexachlorobutadiene	.5	<.010	
034 Hexachloroethane	3	<.010	
03 Nitrobenzene	2	<.010	
03 Pyridine	5	<.500	

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

Pesticides			
020 Chlordane	.03		X
012 Endrin	.02		X
031 Heptachlor (& its Hydroxide)	.008		X
013 Lindane	.4		X
014 Methoxychlor	10		X
015 Toxaphene	.5		X
Herbicides			
016 2,4-D	10		X
017 2,4,5-TP (Silvex)	1		X

"Based upon my knowledge of the waste and the process generating the waste these constituents are not present in the waste above hazardous classification levels."
Signed _____

I hereby authorize Envotech personnel to make necessary modifications and add r request supplemental information to this waste characterization report rovided I am contacted to give verbal permission."
igned _____

nd

I certify that all information including attached information is complete and ac al and is an accurate representation of the known and suspected hazards nd aste generator regulations, pertaining to the waste described here."
ignature _____ Printed Name Kenneth Engman Date 2/19/91

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

10341/A.H.
2-7-91

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-01-058
Date: 02/04/91 16:21
Work ID: EK 6703
Date Received: 01/17/91
Date Completed: 02/04/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	F006 SLUDGE		

Laboratory ID Number (Wisconsin DNR): 241369260

Scott Sherman Linda Woodie
Certified By
Scott Sherman,Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A F006 SLUDGE Collected: 01/15/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.52		ppm	01/30/91	LJW
Barium in Waste	21		ppm	01/25/91	LJW
Cadmium in Waste	3.1		ppm	01/25/91	LJW
Chromium in Waste	2.6		ppm	01/25/91	LJW
Copper in Waste	24000		ppm	01/25/91	LJW
Lead in Waste	21		ppm	01/25/91	LJW
Mercury	0.2		ppm	01/23/91	DAT
Nickel in Waste	12000		ppm	01/25/91	LJW
Selenium, Low Level	0.11		ppm	01/30/91	LJW
Silver in Waste	3.9		ppm	01/25/91	LJW
Zinc in Waste	4400		ppm	01/25/91	LJW

Sample: 01B F006 SLUDGE Collected: 01/15/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.07	1	%	01/29/91	DAT
Appearance	solid		-	01/29/91	NRL
Color	black		-	01/29/91	NRL
Cyanide, Free	<10		ppm	01/29/91	NRL
Flash Point, Closed Cup	>210	140	degrees F	01/22/91	MJH
Free Liquids	0		%	01/29/91	NRL
Layers	1		-	01/29/91	NRL
Odor	slight		-	01/29/91	NRL
Phenol	1.7		ppm	01/28/91	DAT
Specific Gravity	1.05		-	01/29/91	NRL
Sulfide, Reactive	<2		ppm	01/18/91	NRL
Total Solids	19		%	01/29/91	NRL
pH	8.5		units	01/29/91	NRL

Sample: 01C F006 SLUDGE Collected: 01/15/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	<0.010	5.0	mg/l	01/30/91	LJW
TCLP (Barium)	1.0	100.0	mg/l	01/25/91	LJW
TCLP (Cadmium)	0.042	1.0	mg/l	01/25/91	LJW
TCLP (Chromium)	0.27	5.0	mg/l	01/25/91	LJW
TCLP (Copper)	0.34	100	mg/l	01/25/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.5	5.0	mg/l	01/25/91	LJW
TCLP (Mercury)	0.002	0.2	mg/l	01/29/91	DAT
TCLP (Nickel)	*115	35	mg/l	01/25/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	01/30/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	01/25/91	LJW
TCLP (Zinc)	4.7	200	mg/l	01/25/91	LJW
TCLP Inorganic Extraction	-		-	01/23/91	DAT

Sample: 01D F006 SLUDGE Collected: 01/15/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 5.0	500	ppb	02/01/91	SRS
Methyl Ethyl Ketone	< 10.0	200000	ppb	02/01/91	SRS
Carbon tetrachloride	< 5.0	500	ppb	02/01/91	SRS
Chlorobenzene	< 5.0	100000	ppb	02/01/91	SRS
Chloroform	< 5.0	6000	ppb	02/01/91	SRS
1,2-Dichloroethane	< 5.0	500	ppb	02/01/91	SRS
1,4-Dichlorbenzene	< 10.0	7500	ppb	02/01/91	SRS
1,1-Dichloroethene	< 5.0	700	ppb	02/01/91	SRS
Tetrachloroethene	< 5.0	700	ppb	02/01/91	SRS
Trichloroethene	< 5.0	500	ppb	02/01/91	SRS
Pyridine	< 500	5000	ppb	02/01/91	SRS
Vinyl Chloride	< 10.0	200	ppb	02/01/91	SRS
8270 TCLP					
2,4-Dinitrotoluene	< 10	130	ppb	01/31/91	SRS
Hexachlorobenzene	< 10	130	ppb	01/31/91	SRS
Hexachloro-1,3-butadiene	< 10	500	ppb	01/31/91	SRS
Hexachloroethane	< 10	3000	ppb	01/31/91	SRS
Cresol (Total)	< 10	200000	ppb	01/31/91	SRS
Nitrobenzene	< 10	2000	ppb	01/31/91	SRS
Pentachlorophenol	< 50	100000	ppb	01/31/91	SRS
2,4,5-Trichlorophenol	< 10	400000	ppb	01/31/91	SRS
2,4,6-Trichlorophenol	< 10	2000	ppb	01/31/91	SRS
BNA - Extraction, Waste	-		-		TF
TCLP ZHE VOC Extraction	-		-		DP

REPORT COMMENTS

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

* Above Waste Management Limits

GENERATOR WASTE CHARACTERIZATION REPORT
(Separate report required for each waste stream)

Instruction: Please complete all sections of this report and supply a representative one-pint sample of the waste. The form and sample should be shipped together to Envotech Management Services, Inc. at the appropriate address below. Do not ship waste for treatment or disposal until the generator has received an approval letter and established shipment approval directly from the TSDRF. This waste approval request is being submitted for: (Check all that apply).

☒ **Treatment**
Michigan Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 699-7120

☐ **Recovery**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

☐ **Landfill**
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville, Michigan 48111 • (313) 697-7830

☐ **Fuel Blending**
Michigan Recovery Systems, Inc.
36345 Van Born Road
Romulus, MI 48174 • (313) 326-3100

I. FACILITY INFORMATION

US EPA ID# W I D 9 8 0 5 7 0 0 1 4
Generator Name MANITOWOC EQUIPMENT WORKS
Plant Name
Address 2110 SOUTH 26TH STREET
MANITOWOC, WI Zip 54220
Contact Person DENNIS KLINGBEIL Telephone (414) 683-6523 Ext.
Alternative Contact Telephone ( ) Ext.

II. INVOICING INFORMATION

Customer E&K HAZARDOUS WASTE SERVICES, INC.
Address 2905 PAINE AVE. P.O. BOX 1249
SHEBOYGAN, WI Zip 53082-1249
Contact Person ROGER E. SACIA Telephone (414) 458-6030 Ext.
Alternative Contact Telephone ( ) Ext.
Has an account been established X Yes ___ No
If Yes, list account number UNKNOWN If No, complete attached credit application and submit with sample.

III. TRANSPORTER INFORMATION

US EPA ID# W I D 9 8 2 2 1 9 5 2 9
Name E&K HAZARDOUS WASTE SERVICES, INC.
Address 2905 PAINE AVE. P.O. BOX 1249
SHEBOYGAN, WI Zip 53082-1249
Contact Person KATHY BALNAITIS Telephone (414) 458-6030 Ext.

IV. WASTE DESCRIPTION

1. Waste Common Name F006 SLUDGE
2. Provide a detailed description of the process(es) generating this waste:
ELECTROLESS NICKEL PLATING OPERATIONS
3. Does this process meet any listing description under RCRA or Michigan Act 64 Regulations X Yes ___ No
If Yes, List all applicable codes.
F006

4. Is this waste ☐ EP Toxic, ☐ Ignitable, ☐ Oxidizer, ☐ Corrosive, ☐ Reactive?
☒ Michigan Act 64 Characteristically Hazardous (Copper > 100 ppm or Zinc > 500 ppm)
If Yes, List all applicable codes.
003D

5. Is this waste non hazardous under US EPA & Michigan Regulation? _____ Yes __X__ No

6. If this waste is a non-hazardous liquid, it is regulated by Michigan's Act 136; List applicable codes:

7. Chemical Composition

	Range Min.		Range Max.	
		—		%
REFER TO ATTACHED ANALYSIS		—		%
		—		%
FILTER CAKE		—	100	%
		—		%
		—		%
		—		%

NOTE: Total must be ≥ 100% in the Max. Column. Total 100 %

List all major constituents, include all herbicides, pesticides, carcinogens, pathogens and other hazardous constituents.

8. Does this facility use any listed hazardous organic solvents anywhere throughout the plant? __X__ Yes _____ No
If Yes, could these enter into the waste? _____ Yes __X__ No
If Yes, clarify under process description.

9. Does this waste contain any constituents listed below?

				Actual		
Cyanide	X	No	Yes	PPM	Total	Reactive
Sulfide	X	No	Yes	PPM	Total	Reactive
PCB's	X	No	Yes	PPM		
Dioxins/ Furans	X	No	Yes	PPM		

V. PHYSICAL CHARACTERISTICS

1. Does the waste have a characteristic odor? _____ Yes __X__ No
Describe: _____

2. Color Description (Note if Multicolored or Subject to Variation) BLACK

3. Physical State @ 70°F
_____ Dust or Powder __X__ Solid _____ Sludge _____ Liquid _____ Multilayered __X__ Single Phase
__0__ Free Liquids may be associated with this waste

4. Water Content 0 %

5. TOC 0 %

6. TOX 0 %

7. Density 10.68 lbs/gal (use lbs/gallon or lbs/yd^3)

8. pH Range _____ <2 _____ >2-4 __X__ >4-9 _____ >9-12.4 _____ >12.5 Actual 6.9

9. Flash Pt. Range _____ < 90°F _____ ≥90°-140° _____ >140°-200°F __X__ >200°F Actual _____
Method: __X__ Closed Cup _____ Pensky-Martens _____ Setaflash

10. Does this waste meet any of the Characteristics listed below?

Reactive	Yes	X No	Pyrophoric	Yes	X No
Explosive	Yes	X No	Oxidizer	Yes	X No
Shock Sensitive	Yes	X No	Radioactive	Yes	X No

VI. WASTE RECOVERY OR FUEL BLENDING (To be completed for wastes submitted to MRSI)

1. Heat Value _____ Btu/lb _____ Range
2. Viscosity _____ cp
3. Ash _____ %
4. Solids _____ %
5. Chlorine _____ %
6. Sulfur _____ %

7. Total Metal Analysis	Actual
Arsenic	_____ ppm
Barium	_____ ppm
Cadmium	_____ ppm
Chromium	_____ ppm
Lead	_____ ppm
Mercury	_____ ppm
Nickel	_____ ppm
Zinc	_____ ppm

VII. LAND DISPOSAL RESTRICTIONS

Indicate below if the waste is subject to any applicable restrictions or prohibitions as outlined in 40 CFR Part 268. If the waste is subject to a land disposal restriction, the generator must supply analytical information to verify that the waste meets applicable treatment standards. Please refer to the latest version of 40 CFR Section 268 or contact EMSI.

1. Solvent Waste F001-F005 _____ Yes ___X___ No
   If Yes, attach TCLP analysis for F001-F005 constituents listed in Table CCWE of 40 CFR 268.41.
2. Dioxin waste F020-F023, F026-F028 _____ Yes ___X___ No
   If Yes, Stop Here and contact EMSI for assistance.
3. "California List" Waste
   a. Does this waste contain halogenated organic compounds (HOCs) greater than 1,000 ppm?
      _____ Yes ___X___ No
   b. Is this waste a liquid or does it contain any free liquids according to the paint filter liquids test?
      _____ Yes ___X___ No
   c. If yes to b, does the liquid portion contain any of the constituents at concentrations above those identified as the "California List"?
      _____ Yes _____ No
   d. For solid waste, Is the pH ≤ 2?
      _____ Yes ___X___ No
      If Yes, contact EMSI.
4. First third wastes identified 8/8/88. Refer to 40 CFR Section 268.10 ___X___ Yes _____ No
5. Second third wastes identified 6/8/89. Refer to 40 CFR Section 268.11 _____ Yes ___X___ No
6. Third third wastes identified 5/8/90. Refer to 40 CFR Section 268.12 _____ Yes ___X___ No

Attach all specific analyses (TCLP and/or total concentrations)

VIII. SHIPPING INFORMATION

1. Proper Shipping Name RQ HAZARDOUS WASTE SOLID, N.O.S.
2. Hazard Class ORM-E UN/NA# NA9189
3. Shipping Mode: _____ Bulk Liquid _____ Bulk Solid ___X___ Drums
   Other _____
4. Shipping Volume per Month _____
5. Annual or Total Volume 175-200 DRUMS One Time Only _____

IX. CERTIFICATION (To be signed by waste generator)

I certify that all information is complete and factual (including attached information) and is an accurate representation of the known and suspected hazards, and waste generator regulations, pertaining to the waste described herein.

Name DENNIS KLINGBEIL _____ Dennis Klingbeil (signature)

Title SENIOR ENGINEER Date 1-15-90

Company THE MANITOWOC COMPANY, INC. Phone (414) 683-6523

11673/ A.H
7-5-91
Micro-Etch Filter:

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-096
Date: 07/02/91 09:00
Work ID: EK7417
Date Received: 05/17/91
Date Completed: 07/01/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7417		

Laboratory ID Number (Wisconsin DNR): 241369260

Jeff Bushner Linda Woodie
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7417 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.64		ppm	05/21/91	LJW
Barium in Waste	9.6		ppm	05/21/91	LJW
Cadmium in Waste	1.1		ppm	05/21/91	LJW
Chromium in Waste	42		ppm	05/21/91	LJW
Copper in Waste	930		ppm	05/21/91	LJW
Lead in Waste	9.6		ppm	05/21/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	110		ppm	05/21/91	LJW
Selenium, Low Level	0.16		ppm	05/24/91	LJW
Silver in Waste	2.1		ppm	05/21/91	LJW
Zinc in Waste	150		ppm	05/21/91	LJW

Sample: 01B EK7417 Collected: 05/17/91

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.20	1	%	05/23/91	DAT
Acidity	74000		ppm	05/30/91	NEL
Appearance	solid		-	05/17/91	DAT
Color	brown		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0		%	05/17/91	DAT
Layers	1		-	05/17/91	DAT
Odor	moderate		-	05/17/91	DAT
Phenol	1.1		ppm	05/24/91	DAT
Specific Gravity	0.75		-	05/17/91	DAT
Sulfide, Reactive	<2		ppm	05/17/91	DAT
Total Solids	77		%	05/17/91	NEL
pH	* 1.7		units	05/17/91	DAT

Sample: 01C EK7417 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.008	5.0	mg/l	05/22/91	LJW
TCLP (Barium)	0.26	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	10	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.10	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.001	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	2.8	35	mg/l	05/21/91	LJW
TCLP (Selenium)	0.014	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	0.99	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7417 Collected: 05/17/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	06/06/91	JJB
Methyl Ethyl Ketone	< 200	200000	UG/L	06/06/91	JJB
Carbon tetrachloride	< 100	500	UG/L	06/06/91	JJB
Chlorobenzene	< 100	100000	UG/L	06/06/91	JJB
Chloroform	< 100	6000	UG/L	06/06/91	JJB
1,2-Dichloroethane	< 100	500	UG/L	06/06/91	JJB
1,4-Dichlorbenzene	< 200	7500	UG/L	06/06/91	JJB
1,1-Dichloroethene	< 100	700	UG/L	06/06/91	JJB
Tetrachloroethene	< 100	700	UG/L	06/06/91	JJB
Trichloroethene	820	500	UG/L	06/06/91	JJB
Vinyl Chloride	< 200	200	UG/L	06/06/91	JJB
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/28/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/28/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/28/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/28/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/28/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/28/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/28/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/28/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/28/91	LJS
Pyridine	< 100	5000	UG/L	06/28/91	LJS
Organic Extraction	-		-	06/07/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

* Hazard Code DX02

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

E&K HAZARDOUS WASTE SERVICES, INC.

"YOUR WASTE HANDLING ALTERNATIVE"

2906 PAINE AVENUE • P.O. BOX 1249
SHEBOYGAN, WISCONSIN 53082-1249 • (414) 458-6030

April 3, 1992

Mr. Robert Laprise
MANITOWOC EQUIPMENT WORKS
2110 S. 26th Street
Manitowoc, WI 54221-1720

Dear Mr. Laprise,

I just wanted to clarify my comments to you regarding the question of transporting the waste wastewater to your plant last week. As you know, this drum was generated by washing out the inside of our tanker after we collected the waste water from your plant and pumped it into the carboys for storage. My understanding was that the material was higher in nickel than was allowed by your permit from the municipal treatment plant, and would need to be fed at a regulated rate into your treatment system.

After the tanker was washed out and the rinsate collected, the drum was returned to your plant on a bill of lading, with the understanding that it would be treated along with the rest of the wastewater.

At no time during the project, the pumping, transfer, wash-out of the tank or return of the drum, did this material fall under the definition of hazardous waste. This was all wastewater that had not yet been treated by your system.

Your decision to treat this tanker wash-out rinsate through your treatment system indicates that you were intent on taking all necessary precautions to properly handle the material. Labeling the drum as an "F006" waste might have been overly conservative, and led to some confusion as to the proper way to manage it. The fact that the WDNR would allow you to treat the contents of the drum in your system underscores the opinion that it indeed a non-hazardous wastewater that is properly handled in this way.

Please call me if you have any questions.

Sincerely,

Peter Madden

Peter Madden
Project Manager

TO: KARL P. ROOVERS
F.Y.F.
KEN ENGMAN

414-497-5912

414-448-5629

Karl P. Roovers
Wis. DNR

Find copies of "Key" pages from various plans dealing with your fax of this date.
I am sending you a copy of the manual under seperate cover for your review.

Sincerely

Ken Cugman
Manitowoc Equip Works

14 pages total

E&K HAZARDOUS WASTE SERVICES, INC.

"YOUR WASTE HANDLING ALTERNATIVE"

2905 PAINE AVENUE • P.O. BOX 1249
SHEBOYGAN, WISCONSIN 53082-1249 • (414) 458-6030

copy of last notice (3) (6) years

April 26, 1991

Mr. Charles Lohmeyer
MANITOWOC EQUIPMENT WORKS
2110 S. 26th Street
Manitowoc, WI 54221-1720

Dear Mr. Lohmeyer:

This letter documents the 1991 Hazardous Waste training that was conducted at your facility on April 23rd and 24th, 1991. The program was presented in two sessions and the list below indicates who attended each session.

Session 1, 4-23-91

Robert Feyersen
Alan Rosinsky
Bill Kammann
Milton Bashaw
George Schmidt
Linda Johnston
Charles Lohmeyer
Eileen Panklatz
Kenneth Proehl
Dick Lerch
Michael Glaser
Dale Schroeder

Session 2, 4-24-91

Paul Bratz
Randall Long
Doyle Rolo
Donna Cronk
Allen Thompson
Rodney Kroening
Gregory Krcma
Scott Barner
Timothy Meihsner
Carl Stueck
David Williamson
Shirley Fessler
Douglas Coyemberg
Keith Van Ess
Kenneth Krueger
Daniel Fenlon
Richard Wrobel
Ken Blahnik
Dennis Klingbeil
Gerald Rivers

copies in personnel files 4-30-91 pd

Included with this letter are certificates for each of the employees who attended the sessions. Each of the groups took a pre- and post-test to gauge their knowledge of the proper handling of hazardous waste. For the first session, the pre-test score average was 83% and the post-test score average was 84.6%. For the second session, the pre-test score average was 87.7%, and the post-test score average was 88.7%. These scores indicate that the employees came to the session with a very good understanding of what was required to properly handle hazardous waste.

In reviewing the evaluation forms, I found the comments to be generally favorable about the content of the course, but a request that did show up more than once was for information more specific to the MEW plant. In future sessions, I would like to accommodate that request by incorporating some sort of a plant tour or hands-on segment of the training, as you suggested on Tuesday. While I think that the programs that have been presented to this point have been effective in giving the employees the type of information they need, I think that because of the stable nature of your work force, other ways of presenting the information would be in order in the future. When the time comes for the next program, I would be happy to discuss some alternatives.

Also included with this letter are copies of corrections to the training manual and contingency plan. These should be distributed to all attendees of the training program so they can incorporate these corrections into their copies of the manual.

I want to take this opportunity to thank you for the opportunity to present this program to you and your employees. I enjoyed preparing and presenting this information and appreciate the assistance I received from you, Ken Engman and Dennis Klingbeil in the review of the material. If you have any question regarding the program or any training needs for the future, please call me.

Sincerely,

Peter Madden

Peter Madden
Training Manager

PM/lt

enclosures: training certificates
correction sheet for manual

(6)

SIGN-IN / ATTENDANCE RECORD

Date: May 27, 1992

MORNING SESSION AFTERNOON SESSION

1 Kent Cubney
2 David Williamson
3 Randy Strauss
4 Brian Simmer
5 R E Krowiorz
6 Randy Werner
7 Scott Habermann
8 Milton Bashaw
9 Allen C Thompson
10 Scott A. Bamer
11 David A. Schmidt
12 Daniel J. Fenton
13 [illegible]
14 Greg Urbanik
15 Dick Lirch
16 Paul J. Kratz
17 Timothy J Meihsner
18 Gerald E. Riess
19 Bob Feyersen
20 Randall Long
21 Mark Hills
22 Tom Helm
23 Greg Kuma
24 Bruce C Hakner
25
26
27
28
29
30
31
32
33
34

copy of sign in notice/list this year

SIGN-IN / ATTENDANCE RECORD

Date: May 27, 1992 Manitowoc Equipment Works

MORNING SESSION AFTERNOON SESSION

1 William Kammann
2 Shirley A. Fessler
3 Dale Schroeder
4 Doug Cayemberg
5 Bob Lapaie
6 Darrell Schramm
7 Kenneth Oswald
8 [illegible]
9 Doyle Rote
10 Carl Stund
11 Glen Hankisky
12 Donna Crook
13 Linda Johnston
14 M.J. Glasey
15 Wayne [illegible]
16 Earl Blake
17 Scott Shelestra
18 Bill Hebel
19 Terry Kukral
20 Al Rosinsky
21 Richard Novak
22 Keith Van Cas
23 Todd Mueller
24 Michael Schneider
25 Joe Nong
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Copy of sign in list from this year

(6)

State of Wisconsin
Department of Natural Resources
Form 3400-71 Rev. 9-90

CONTINUING EDUCATION CREDITS FOR CERTIFIED OPERATORS

SAVE THIS SLIP AND SEND IN WITH YOUR RENEWAL APPLICATION

MAX HOURS 24 WASTEWATER ☒ WATERWORKS ☐ HOURS ATTENDED

Training Session Name: Computer Literacy

Session ID Number: STM2440692

Location: Manitowoc

Operator Name (Last, First, Middle Initial): Kenneth Engman

Date: 6-1-92

Operator Certificate Number: 06876

Signature of Training Coordinator: [redacted] Date Signed: 6-9-92

I hereby certify that I have attended the above training session for the hours claimed.

Signature of Operator: Date Signed

State of Wisconsin
Department of Natural Resources
Form 3400-71 Rev. 9-90

CONTINUING EDUCATION CREDITS FOR CERTIFIED OPERATORS

SAVE THIS SLIP AND SEND IN WITH YOUR RENEWAL APPLICATION

MAX HOURS 3 WASTEWATER ☒ WATERWORKS ☐ HOURS ATTENDED

Training Session Name: Haz. Waste Training

Session ID Number: SBS0340592

Location:

Operator Name (Last, First, Middle Initial): Kenneth Engman

Date: 5-27-92

Operator Certificate Number: 06876

Signature of Training Coordinator: [redacted] Date Signed: 6-9-92

I hereby certify that I have attended the above training session for the hours claimed.

Signature of Operator: Date Signed

MANITOWOC EQUIPMENT WORKS

HAZARDOUS WASTE TRAINING

ANNUAL REVIEW

ATTENDANCE RECORD

copy of sheet for records files

Date: May 27, 1992

This training session is presented in compliance with NR 615.05 (4) (a) 5, for training, and NR 630.16 (3), for the annual review.

The undersigned employee acknowledges attendance at this training session and understanding of the information presented.

NAME (please print): Kenneth Engman

SIGNATURE: [signature]

INSTRUCTOR: Peter Madden, CHMM, E&K Hazardous Waste Services, Inc.

INSTRUCTOR SIGNATURE: Peter Madden

2. Provide the Emergency Coordinator with the following information:

   SPEAK SLOWLY AND CLEARLY

   a. your name
   b. location of emergency
   c. extent of damage or danger
   d. if any injuries have occurred

B. Emergency Coordinator Plan of Action

A more detailed explanation of the Emergency Coordinator responsibilities and implementation of the Contingency Plan are shown in Appendix I on page 23.

1. Upon notification of an emergency situation involving hazardous waste, ask the caller to give you the following information:

   a. caller's name
   b. location of emergency
   c. extent of damage of danger
   d. if any injuries have occurred

2. Evaluate the emergency situation. Assess human and/or environmental hazards. For assistance in making this decision, see Appendix II on page 24.

3. If necessary, initiate evacuation of the affected area. Between 7:30 a.m. and 4:00 p.m., call the receptionist and give the following information.

   - nature of emergency
   - location of emergency
   - areas of the plant to be evacuated
   - alternate exit routes to be used, if necessary

   At all other times, the Emergency Coordinator will make the announcement, or direct someone to make it. For further information on the evacuation plan, see section III on page 10 of this Contingency Plan.

4. Call security, ext. 2000, and have the guard on duty contact the emergency management team. Emergency management team personnel are listed in Table 5 on page 20.
5. Based upon your evaluation, if the emergency management team and on-site personnel team cannot handle the situation because it is a non-incidental release, have the guard on duty call the Manitowoc Fire and Police Departments. When further assistance with cleanup and containment is required, contact E & K Hazardous Waste Services, Sheboygan, Wisconsin. Telephone numbers are listed in Table 4 on page 19.
6. If there is an known injury, have the guard on duty call the hospital for an ambulance. Telephone number is listed in Table 3 on page 18.
7. Proceed to the scene to identify the source, amount, and extent of the emergency. REMEMBER!!! Proceed safely, you are possibly going into a dangerous situation. For assistance with this procedure, see Appendix III on page 29.
8. Designate appropriate Emergency Management Team personnel with specific duties of monitoring or controlling the emergency situation as best as possible.
9. Take appropriate action to ensure that the fire, explosion, or spill does not occur, recur, or spread into other areas, as long as it is an incidental release, and provide information the emergency responders.

10. If there is a reportable spill, call the Wisconsin Division of Emergency Government at (608) 266-3232, the National Response Center at (800) 424-8802, and the Wisconsin Department of Natural Resources, Green Bay Area office at (414) 497-4025. Table 5 on page 20 contains the appropriate reportable quantities. Immediately after the emergency is over, the following should be done:
11. Ensure that the affected area is cleaned up properly and safely.
12. Ensure that all emergency equipment used is cleaned up and fit for their intended use before operations are resumed.
13. Notify the Wisconsin Department of Natural Resources that you have completed item 12 above before operations are resumed in the affected areas.
14. Evaluate the effectiveness of the Contingency Plan procedures and report any deficiencies so that revision can be made.
15. Submit a written report to the Wisconsin Department of Natural Resources regarding the emergency incident involving hazardous waste. The reporting requirements are in section VI on page 18.

C. Emergency Management Team Plan of Action

1. Once contacted by the security guard, report to the designated command post and assist the Emergency Coordinator.

E&K HAZARDOUS WASTE SERVICES, INC.

"YOUR WASTE HANDLING ALTERNATIVE"

2905 PAINE AVENUE • P.O. BOX 1249
SHEBOYGAN, WISCONSIN 53082-1249 • (414) 458-6030

July 17, 1991

Ken Engman
Manitowoc Equipment Works
2110 South 26th Street
P.O. Box 1720
Manitowoc, WI 54221-1720

Dear Ken:

Enclosed are copies of the analyses for the following waste streams:

	Proposed Disposal Facility
1. Nickel Filters and Liquids	Michigan Disposal
2. Cyanide Filters (total cyanides analysis pending)	Michigan Disposal
3. Paint Line Sludge - Tank #1	Michigan Disposal
4. Paint Line Sludge - Tank #3	Michigan Disposal
5. Plastic Media	Ridgeview Landfill
6. Micro-etch (AB) Filters	Cyano-KEM (approved)

The permitting paperwork is being processed and will be sent to your attention for review and signature. I made the necessary arrangements to have a "total cyanide" analysis done on the Cyanide Filters because Michigan Disposal will require this analysis for approval consideration.

As usual, call me if you have any questions of if I can be of further assistance.

Sincerely,

Al Hoeppner

Al Hoeppner
Customer Services

AH/mw

11673/AH
7-5-91
Micro-Etch Filters

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-096
Date: 07/02/91 09:00
Work ID: EK7417
Date Received: 05/17/91
Date Completed: 07/01/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7417		

Laboratory ID Number (Wisconsin DNR): 241369260

Jeff Bushner Linda Woodie
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7417 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.64		ppm	05/21/91	LJW
Barium in Waste	9.6		ppm	05/21/91	LJW
Cadmium in Waste	1.1		ppm	05/21/91	LJW
Chromium in Waste	42		ppm	05/21/91	LJW
Copper in Waste	930		ppm	05/21/91	LJW
Lead in Waste	9.6		ppm	05/21/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	110		ppm	05/21/91	LJW
Selenium, Low Level	0.16		ppm	05/24/91	LJW
Silver in Waste	2.1		ppm	05/21/91	LJW
Zinc in Waste	150		ppm	05/21/91	LJW

Sample: 01B EK7417 Collected: 05/17/91

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.20	1	%	05/23/91	DAT
Acidity	74000		ppm	05/30/91	NRL
Appearance	solid		-	05/17/91	DAT
Color	brown		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0		%	05/17/91	DAT
Layers	1		-	05/17/91	DAT
Odor	moderate		-	05/17/91	DAT
Phenol	1.1		ppm	05/24/91	DAT
Specific Gravity	0.75		-	05/17/91	DAT
Sulfide, Reactive	<2		ppm	05/17/91	DAT
Total Solids	77		%	05/17/91	NRL
pH	* 1.7		units	05/17/91	DAT

Sample: 01C EK7417 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.008	5.0	mg/l	05/22/91	LJW
TCLP (Barium)	0.26	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	10	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.10	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.001	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	2.8	35	mg/l	05/21/91	LJW
TCLP (Selenium)	0.014	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	0.99	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7417 Collected: 05/17/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	US/L	06/06/91	JJB
Methyl Ethyl Ketone	< 200	200000	US/L	06/06/91	JJB
Carbon tetrachloride	< 100	500	US/L	06/06/91	JJB
Chlorobenzene	< 100	100000	US/L	06/06/91	JJB
Chloroform	< 100	6000	US/L	06/06/91	JJB
1,2-Dichloroethane	< 100	500	US/L	06/06/91	JJB
1,4-Dichlorbenzene	< 200	7500	US/L	06/06/91	JJB
1,1-Dichloroethene	< 100	700	US/L	06/06/91	JJB
Tetrachloroethene	< 100	700	US/L	06/06/91	JJB
Trichloroethene	820	500	US/L	06/06/91	JJB
Vinyl Chloride	< 200	200	US/L	06/06/91	JJB
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	US/L	06/28/91	LJS
Hexachlorobenzene	< 100	130	US/L	06/28/91	LJS
Hexachloro-1,3-butadiene	< 100	500	US/L	06/28/91	LJS
Hexachloroethane	< 100	3000	US/L	06/28/91	LJS
Cresol (Total)	< 100	200000	US/L	06/28/91	LJS
Nitrobenzene	< 100	2000	US/L	06/28/91	LJS
Pentachlorophenol	< 500	100000	US/L	06/28/91	LJS
2,4,5-Trichlorophenol	< 100	400000	US/L	06/28/91	LJS
2,4,6-Trichlorophenol	< 100	2000	US/L	06/28/91	LJS
Pyridine	< 100	5000	US/L	06/28/91	LJS
Organic Extraction	-		-	06/07/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

* Hazard Code D002

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

11673/Pit.
7-1-91

Plastic Media/Filters
M.E.W. 05 & 12

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-092
Date: 06/28/91 11:21
Work ID: EK7413
Date Received: 05/17/91
Date Completed: 06/28/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7413		

Laboratory ID Number (Wisconsin DNR): 241369260

Linda Woodie Jeffrey J. Bushner
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7413 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.94		ppm	05/21/91	LJW
Barium in Waste	590		ppm	05/21/91	LJW
Cadmium in Waste	0.51		ppm	05/21/91	LJW
Chromium in Waste	1.5		ppm	05/21/91	LJW
Copper in Waste	3.4		ppm	05/21/91	LJW
Lead in Waste	9.1		ppm	05/21/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	22		ppm	05/21/91	LJW
Selenium, Low Level	<0.05		ppm	05/22/91	LJW
Silver in Waste	<0.25		ppm	05/21/91	LJW
Zinc in Waste	1500		ppm	05/21/91	LJW

Sample: 01B EK7413 Collected: 05/17/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.06	1	%	05/23/91	DAT
Appearance	solid		-	05/17/91	DAT
Color	gray		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0		%	05/17/91	DAT
Layers	1		-	05/17/91	DAT
Odor	none		-	05/17/91	DAT
Phenol	10		ppm	05/20/91	DAT
Specific Gravity	1.88		-	05/17/91	DAT
Sulfide, Reactive	<2		ppm	05/17/91	DAT
Total Solids	94		%	05/17/91	NEL
pH	6.6		units	05/17/91	DAT

Sample: 01C EK7413 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.015	5.0	mg/l	05/22/91	LJW
TCLP (Barium)	2.0	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	0.06	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	0.21	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	0.0009	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	2.1	35	mg/l	05/21/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	13	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7413 Collected: 05/17/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	05/22/91	SRS
Methyl Ethyl Ketone	< 200	200000	UG/L	05/22/91	SRS
Carbon tetrachloride	< 100	500	UG/L	05/22/91	SRS
Chlorobenzene	< 100	100000	UG/L	05/22/91	SRS
Chloroform	< 100	6000	UG/L	05/22/91	SRS
1,2-Dichloroethane	< 100	500	UG/L	05/22/91	SRS
1,4-Dichlorbenzene	< 200	7500	UG/L	05/22/91	SRS
1,1-Dichloroethene	< 100	700	UG/L	05/22/91	SRS
Tetrachloroethene	< 100	700	UG/L	05/22/91	SRS
Trichloroethene	< 100	500	UG/L	05/22/91	SRS
Vinyl Chloride	< 200	200	UG/L	05/22/91	SRS
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/27/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/27/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/27/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/27/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/27/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/27/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/27/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/27/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/27/91	LJS
Pyridine	< 100	5000	UG/L	06/27/91	LJS
Organic Extraction	-		-	05/21/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)
High detection limit due to matrix interference

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

11672 / AH
7-1-91

Paint Line - Tank(3) Sludge
M.E.W. 09 & 010

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-095
Date: 06/28/91 11:36
Work ID: EK7416
Date Received: 05/17/91
Date Completed: 06/28/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7416		

Laboratory ID Number (Wisconsin DNR): 241369260

Linda Woodie Jeffrey J. Bushner
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7416 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.57		ppm	05/22/91	LJW
Barium in Waste	33		ppm	05/21/91	LJW
Cadmium in Waste	15		ppm	05/21/91	LJW
Chromium in Waste	32		ppm	05/21/91	LJW
Copper in Waste	15		ppm	05/21/91	LJW
Lead in Waste	79		ppm	05/21/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	17		ppm	05/21/91	LJW
Selenium, Low Level	<0.05		ppm	05/24/91	LJW
Silver in Waste	<0.25		ppm	05/21/91	LJW
Zinc in Waste	120000		ppm	05/28/91	LJW

Sample: 01B EK7416 Collected: 05/17/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.09	1	%	05/23/91	DAT
Appearance	solid		-	05/17/91	DAT
Color	brown		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0.02		%	05/20/91	DAT
Layers	1		-	05/17/91	DAT
Odor	slight		-	05/17/91	DAT
Phenol	2.5		ppm	05/20/91	DAT
Specific Gravity	1.60		-	05/17/91	DAT
Sulfide, Reactive	<2		ppm	05/17/91	DAT
Total Solids	64		%	05/17/91	MRL
pH	5.3		units	05/17/91	DAT

Sample: 01C EK7416 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	<0.005	5.0	mg/l	05/21/91	LJW
TCLP (Barium)	<0.10	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	0.06	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.10	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.0002	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	0.08	35	mg/l	05/21/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
* TCLP (Zinc)	* 120	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7416 **Collected: 05/17/91**
Job: TCLP_0 TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	05/22/91	SRS
Methyl Ethyl Ketone	< 200	200000	UG/L	05/22/91	SRS
Carbon tetrachloride	< 100	500	UG/L	05/22/91	SRS
Chlorobenzene	< 100	100000	UG/L	05/22/91	SRS
Chloroform	< 100	6000	UG/L	05/22/91	SRS
1,2-Dichloroethane	< 100	500	UG/L	05/22/91	SRS
1,4-Dichlorbenzene	< 200	7500	UG/L	05/22/91	SRS
1,1-Dichloroethene	< 100	700	UG/L	05/22/91	SRS
Tetrachloroethene	< 100	700	UG/L	05/22/91	SRS
Trichloroethene	< 100	500	UG/L	05/22/91	SRS
Vinyl Chloride	< 200	200	UG/L	05/22/91	SRS
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/27/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/27/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/27/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/27/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/27/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/27/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/27/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/27/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/27/91	LJS
Pyridine	< 100	5000	UG/L	06/27/91	LJS
Organic Extraction	-		-	05/21/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

* Above Waste Management Limits

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

11673/A.A.
7-1-91

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Paint Line - Tank(1) Sludge
M.E.W. 07 & 08

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-094
Date: 06/28/91 12:58
Work ID: EK7415
Date Received: 05/17/91
Date Completed: 06/28/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7415		

Laboratory ID Number (Wisconsin DNR): 241369260

Linda Woodie Jeff J. Bushner
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7415 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	4.8		ppm	05/21/91	LJW
Barium in Waste	6.3		ppm	05/21/91	LJW
Cadmium in Waste	14		ppm	05/21/91	LJW
Chromium in Waste	72		ppm	05/21/91	LJW
Copper in Waste	1300		ppm	05/21/91	LJW
Lead in Waste	140		ppm	05/28/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	630		ppm	05/21/91	LJW
Selenium, Low Level	<0.05		ppm	05/24/91	LJW
Silver in Waste	<0.25		ppm	05/21/91	LJW
Zinc in Waste	19000		ppm	05/28/91	LJW

Sample: 01B EK7415 Collected: 05/17/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.24	1	%	05/23/91	DAT
Appearance	solid		-	05/17/91	DAT
Color	brown		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0		%	05/17/91	DAT
Layers	1		-	05/17/91	DAT
Odor	moderate		-	05/17/91	DAT
Phenol	2.2		ppm	05/20/91	DAT
Specific Gravity	1.74		-	05/17/91	DAT
Sulfide, Reactive	2		ppm	05/21/91	NRL
Total Solids	82		%	05/17/91	NRL
pH	6.2		units	05/17/91	DAT

Sample: 01C EK7415 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.011	5.0	mg/l	05/22/91	LJW
TCLP (Barium)	<0.10	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	0.024	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	0.13	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.10	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.0004	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	3.1	35	mg/l	05/21/91	LJW
TCLP (Selenium)	0.012	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	39	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7415 Collected: 05/17/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	05/22/91	SRS
Methyl Ethyl Ketone	< 200	200000	UG/L	05/22/91	SRS
Carbon tetrachloride	< 100	500	UG/L	05/22/91	SRS
Chlorobenzene	< 100	100000	UG/L	05/22/91	SRS
Chloroform	< 100	6000	UG/L	05/22/91	SRS
1,2-Dichloroethane	< 100	500	UG/L	05/22/91	SRS
1,4-Dichlorbenzene	< 200	7500	UG/L	05/22/91	SRS
1,1-Dichloroethene	< 100	700	UG/L	05/22/91	SRS
Tetrachloroethene	< 100	700	UG/L	05/22/91	SRS
Trichloroethene	< 100	500	UG/L	05/22/91	SRS
Vinyl Chloride	< 200	200	UG/L	05/22/91	SRS
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/27/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/27/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/27/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/27/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/27/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/27/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/27/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/27/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/27/91	LJS
Pyridine	< 100	5000	UG/L	06/27/91	LJS
Organic Extraction	-		-	05/21/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

11673/AH
7-1-91

Cyanide Filters
M.E.W. 06

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-05-093
Date: 06/28/91 12:50
Work ID: EK7414
Date Received: 05/17/91
Date Completed: 06/28/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7414		

Laboratory ID Number (Wisconsin DNR): 241369260

Run Total Cyanides
[illegible], also.

Linda Woodie Jeff J. Bushner
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7414 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	0.31		ppm	05/21/91	LJW
Barium in Waste	2.8		ppm	05/21/91	LJW
Cadmium in Waste	<0.010		ppm	05/21/91	LJW
Chromium in Waste	1.7		ppm	05/21/91	LJW
Copper in Waste	170		ppm	05/21/91	LJW
Lead in Waste	1.4		ppm	05/21/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	49		ppm	05/21/91	LJW
Selenium, Low Level	<0.05		ppm	05/24/91	LJW
Silver in Waste	0.61		ppm	05/21/91	LJW
Zinc in Waste	120		ppm	05/21/91	LJW

Sample: 01B EK7414 Collected: 05/17/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.12	1	%	05/23/91	DAY
Appearance	solid		-	05/17/91	DAT
Color	black		-	05/17/91	DAT
Cyanide, Free	85		ppm	05/20/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0		%	05/17/91	DAT
Layers	1		-	05/17/91	DAT
Odor	strong		-	05/17/91	DAT
Phenol	2.1		ppm	05/20/91	DAT
Specific Gravity	0.24		-	05/17/91	DAT
Sulfide, Reactive	<2		ppm	05/17/91	DAT
Total Solids	78		%	05/17/91	NRL
pH	10.5		units	05/17/91	DAT

Sample: 01C EK7414 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.015	5.0	mg/l	05/22/91	LJW
TCLP (Barium)	<0.10	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	0.06	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	2.4	100	mg/l	05/21/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	<0.10	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.0002	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	0.27	35	mg/l	05/21/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	0.18	200	mg/l	05/21/91	
TCLP Inorganic Extraction	-		-	05/18/91	NRL

Sample: 01D EK7414 Collected: 05/17/91
Job: TCLP_0 TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	05/22/91	SRS
Methyl Ethyl Ketone	< 200	200000	UG/L	05/22/91	SRS
Carbon tetrachloride	< 100	500	UG/L	05/22/91	SRS
Chlorobenzene	< 100	100000	UG/L	05/22/91	SRS
Chloroform	< 100	6000	UG/L	05/22/91	SRS
1,2-Dichloroethane	< 100	500	UG/L	05/22/91	SRS
1,4-Dichlorbenzene	< 200	7500	UG/L	05/22/91	SRS
1,1-Dichloroethene	< 100	700	UG/L	05/22/91	SRS
Tetrachloroethene	< 100	700	UG/L	05/22/91	SRS
Trichloroethene	< 100	500	UG/L	05/22/91	SRS
Vinyl Chloride	< 200	200	UG/L	05/22/91	SRS
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/27/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/27/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/27/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/27/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/27/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/27/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/27/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/27/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/27/91	LJS
Pyridine	< 100	5000	UG/L	06/27/91	LJS
Organic Extraction	-		-	05/21/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

REPORT COMMENTS

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

11673/AH
7-1-91
Nickel Filters & Liquids
M.E.W. 01 – 04

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number: 1491

Order #: 91-05-091
Date: 06/28/91 13:52
Work ID: EK7412
Date Received: 05/17/91
Date Completed: 06/28/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	EK7412		

Laboratory ID Number (Wisconsin DNR): 241369260

Jeff Bushner Linda Woodie
Certified By
Jeff Bushner, Linda Woodie

TEST RESULTS BY SAMPLE

Sample: 01A EK7412 Collected: 05/17/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	290		ppm	05/30/91	LJW
Barium in Waste	1.4		ppm	05/21/91	LJW
Cadmium in Waste	0.19		ppm	05/21/91	LJW
Chromium in Waste	130		ppm	05/21/91	LJW
Copper in Waste	8400		ppm	05/31/91	LJW
Lead in Waste	39		ppm	05/31/91	LJW
Mercury	<0.1		ppm	05/23/91	DAT
Nickel in Waste	210000		ppm	05/31/91	LJW
Selenium, Low Level	<0.05		ppm	05/24/91	LJW
Silver in Waste	3.3		ppm	05/21/91	LJW
Zinc in Waste	1100		ppm	05/21/91	LJW

Sample: 01B EK7412 Collected: 05/17/91
Job: PROTAW Protocol A, Wet Chem

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.05	1	%	05/23/91	DAT
Appearance	liq/solid		-	05/17/91	DAT
Color	black		-	05/17/91	DAT
Cyanide, Free	<10		ppm	05/17/91	DAT
Flash Point, Closed Cup	>210	140	degrees F	05/23/91	MJH
Free Liquids	0.40		%	05/20/91	DAT
Layers	2		-	05/17/91	DAT
Odor	none		-	05/17/91	DAT
Phenol	0.64		ppm	05/20/91	DAT
Specific Gravity	2.27		-	05/17/91	DAT
Sulfide, Reactive	4		ppm	05/21/91	NRL
Total Solids	46		%	05/17/91	NRL
pH	4.8		units	05/17/91	DAT

Sample: 01C EK7412 Collected: 05/17/91
Job: TCLP_O TCLP Organic

Test Description	Result	Limit	Units	Analyzed	By
8240 TCLP					
Benzene	< 100	500	UG/L	06/06/91	JJB
Methyl Ethyl Ketone	< 200	200000	UG/L	06/06/91	JJB
Carbon tetrachloride	< 100	500	UG/L	06/06/91	JJB
Chlorobenzene	< 100	100000	UG/L	06/06/91	JJB

Test Description	Result	Limit	Units	Analyzed	By
Chloroform	< 100	6000	UG/L	06/06/91	JJB
1,2-Dichloroethane	< 100	500	UG/L	06/06/91	JJB
1,4-Dichlorbenzene	< 200	7500	UG/L	06/06/91	JJB
1,1-Dichloroethene	< 100	700	UG/L	06/06/91	JJB
Tetrachloroethene	< 100	700	UG/L	06/06/91	JJB
Trichloroethene	810	500	UG/L	06/06/91	JJB
Vinyl Chloride	< 200	200	UG/L	06/06/91	JJB
8270 TCLP					
2,4-Dinitrotoluene	< 100	130	UG/L	06/27/91	LJS
Hexachlorobenzene	< 100	130	UG/L	06/27/91	LJS
Hexachloro-1,3-butadiene	< 100	500	UG/L	06/27/91	LJS
Hexachloroethane	< 100	3000	UG/L	06/27/91	LJS
Cresol (Total)	< 100	200000	UG/L	06/27/91	LJS
Nitrobenzene	< 100	2000	UG/L	06/27/91	LJS
Pentachlorophenol	< 500	100000	UG/L	06/27/91	LJS
2,4,5-Trichlorophenol	< 100	400000	UG/L	06/27/91	LJS
2,4,6-Trichlorophenol	< 100	2000	UG/L	06/27/91	LJS
Pyridine	< 100	5000	UG/L	06/27/91	LJS
Organic Extraction	-		-	05/21/91	TAF
TCLP Organic Extraction	-		-	05/18/91	NRL
TCLP ZH Extraction	-		-	05/21/91	NRL

Sample: 01D EK7412 Collected: 05/17/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	1.4	5.0	mg/l	05/30/91	LJW
TCLP (Barium)	0.62	100.0	mg/l	05/21/91	LJW
TCLP (Cadmium)	<0.010	1.0	mg/l	05/21/91	LJW
TCLP (Chromium)	0.07	5.0	mg/l	05/21/91	LJW
TCLP (Copper)	4.5	100	mg/l	05/21/91	LJW
TCLP (Lead)	1.0	5.0	mg/l	05/21/91	LJW
TCLP (Mercury)	<0.001	0.2	mg/l	05/23/91	DAT
TCLP (Nickel)	* 4800	35	mg/l	05/28/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	05/22/91	LJW
TCLP (Silver)	<0.05	5.0	mg/l	05/21/91	LJW
TCLP (Zinc)	17	200	mg/l	05/21/91	LJW
TCLP Inorganic Extraction	-		-	05/18/91	NRL

REPORT COMMENTS

* Exceeds Waste Management Limits.

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

E&K HAZARDOUS WASTE SERVICES, INC.

"YOUR WASTE HANDLING ALTERNATIVE"

2905 PAINE AVENUE • P.O. BOX 1249
SHEBOYGAN, WISCONSIN 53082-1249 • (414) 458-6030

March 22, 1991

Mr. Ken Engman
MANITOWOC EQUIPMENT WORKS
2110 South 26th Street
Manitowoc, WI 54220

Dear Ken:

Enclosed is a new CyamoKEM waste profile. When I completed the original I took a too literal reading of the regulations. After further review I realized that this material would fall under the contained in rule, that is, this waste contains rinse water from a cyanide plating operation. Therefore, it must be classified as a F009, even though it is not characteristically hazardous.

Please sign this form and return it to my attention as soon as possible.

Sincerely,

Phillip Ditter
Technical Coordinator

enc

PD/mk

Cyanide scale from clean-out of cyanide tanks.

Cyanc "EM

WASTE STREAM CHARACTERIZATION RECORD

Regulations require generators and/or brokers to fully ...ete this Waste Stream Characterization Record before wastes can be a... ...ed for treatment.

NuKEM CORPORATION

EPA Identification Number: MID098011992

Waste Lab Control Number: C- 39606

Waste Lab Control Number
C- 39606

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval. Please send original with sample.

PLEASE SUBMIT THE COMPLETED FORM AND A 16 TO 32 OUNCE SAMPLE OF THE WASTE STREAM TO: Approvals Laboratory, CyanoKEM, 12381 Schaefer Hwy, Detroit, MI 48227

1 Generator Information:

Generator ID # WID980570014 Name Manitowoc Equipment Works

Address 2110 South 26th Street City Manitowoc State WI Zip Code 54220

Official Contact Ken Engman Title Telephone 414/687-0161 Fax

2 Broker Information:

Name: E&K Hazardous Waste Svcs Official Contact: Phillip Ditter Telephone: (414) 458-6030 Fax: (414) 452-7254

Address: 2905 Paine Avenue, P.O. Box 1249 City: Sheboygan State: Wisconsin Zip: 53082-1249

3 Waste Description:

Common Chemical Name/Trade Name: Cyanide Scale Land Ban Notification Required? ☒ Yes ☐ No
(If trade name is used, attach MSDS)

Process Producing Waste: Cleaning of Rinsewater Tanks

DOT Shipping Name: RQ Hazardous Waste liquid, n.o.s. DOT Hazard Class: ORM-E UN/NA # NA9189

EPA Waste Number(s): F009 If not a listed waste, circle hazardous characteristic: Ignitable Reactive Corrosive Toxic Oxidizer

Physical State at 70°: ☐ Solid Chunks ☐ Solid Monolith ☒ Sludge ☐ Liquid Other (explain):

Visual Description:

4 Chemical Composition:

Specific Gravity: 1.35 pH: 9.3

Chemical Composition in (check one): ☐ % ☒ ppm (Michigan Critical Materials Register (CMR):

Arsenic	0.12	Barium	74	Cadmium	<0.075	Chromium	<2	Chromium (+6)	Trace	Chromium Total	1.9
Cobalt	None	Copper	31	Lead	20	Lithium	None	Mercury	<0.1	Nickel	7.6
Silver	0.53	Zinc	5.3	Selenium	<0.05	Total Cyanides	68	Total Sulfides			

ATTACH MOST RECENT ANALYTICAL INFORMATION, IF AVAILABLE.

Oils, Grease None Organics None Phenols None Acids None Bases Present

Reactive Under 40CFR261.23? ☐ Yes ☒ No

Other:

5 Other Components and Constituents:

Circle any of the following that are present:

Biological Materials Pathogens Etiological Agents Pesticides

PCB's PBB's Dioxins Radioactive Materials

American NuKEM Representative: _____ **Code:** _____
☐ Rock Hill, SC (803) 329-9690 ☐ Mahwah, NJ (201) 818-0900 ☐ Southfield, MI (313) 353-5880

6 Special Handling Instructions or Other Information: _____

7 Approximate Amount of Waste Produced Annually: 3 Drums _____ Amount on Hand: 3 Drums _____

8 Packaging for Shipment: ☒ Drums (size) 55 gallons (weight) _____ pounds ☐ Bulk ☐ Other: _____

9 Transportation Equipment Requirements: _____

10 Scheduling Contact: Kathy Balnaitis Telephone: 414/458-6030

11 **Authorization to Correct WSCR:** I authorize CyanoKEM to make corrections to this WSCR Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of Michigan DNR or EPA. I understand that a corrected copy will be sent to me. Yes ☒ No ☐ Initial: _____

NOTE: Any significant changes or deviations from the waste received versus the information on this form requires amendment.

12 **Certification:** I hereby certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and I believe that the submitted information is true and accurate.

Signature: Kenneth Engman Title: W/W Treatment Specialist Date: 03-25-91

GENERAL INFORMATION FOR WSCR

1. Instructions for completing CyanoKEM's Waste Stream Characterization Record (WSCR) are provided below. Providing an accurate and complete form assures the most rapid waste approval. For assistance, call CyanoKEM: (313) 933-1850.
2. Regulations require that all the information requested by the WSCR must be provided before wastes can be accepted at CyanoKEM. Complete this form to the best of your knowledge considering the origin and use of the materials.
3. A separate WSCR must be completed for each waste sample sent to CyanoKEM.
4. Your waste approval will be processed most quickly if you fill out the WSCR completely and accurately. If we find inconsistencies in your WSCR it must be returned to you for correction and resubmitted for final approval. Alternately, to save time you should authorize CyanoKEM to correct your WSCR by checking "Yes" and signing in Item 11 above. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. The most rapid waste approval will be achieved by authorizing CyanoKEM to make your WSCR corrections. You will receive a copy of the corrected WSCR for your records.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE WSCR

1. **Generator Information**
   Provide generator's USEPA identification number, name, address, contact person and telephone number. If you are a broker, service company or regulatory agency representing a generator, regulations require you to provide the name of the generator in this section.
2. **Broker Information**
   If you are a broker, service company or regulatory agency representing a generator, provide your name, address, telephone number and contact person in this section.
3. **Waste Description**
   Fill in all blanks in this section to the best of your knowledge. If **"other"** is checked, insert a brief description in the blank.
4. **Chemical Composition**
   Check "%" or "ppm." If you use percentages, your total must equal 100%. If you use ppm and do not know exact quantities, you can use words such as "trace" or "present." Do not use words such as "unknown" or "not available."
5. **Other Components and Constituents**
   If any of the listed constituents are known to be present, insert the amount in weight percent.
6. **Special Handling Instructions**
   List any of the materials that are known to be present.
7. **Approximate Amount of Waste**
   Provide best available figures.
8. **Packaging for Shipment**
   Check appropriate box, fill in blank(s). If "other," describe. List all container sizes.
9. **Transportation Equipment Requirements**
   Give details of special requirements such as power tail gate, vacuum tankers, etc.
10. **Scheduling Contact**
    Provide the name and telephone number of the individual responsible for scheduling waste shipments.
11. **Authorization to Correct WSCR**
    Check "Yes" and intial this section if you want CyanoKEM to correct any inconsistencies. The most rapid waste approval will be achieved by authorizing CyanoKEM to make your WSCR corrections. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. You will receive a copy of the corrected WSCR for your records. If you do not authorize CyanoKEM to make corrections, WSCR's must be returned to you for your correction and resubmitted for final approval. This extends waste approval time.
12. **Certification**
    Must be signed by the appropriate personnel representing the company generating or handling the waste.

SAMPLE SUBMITTAL

1. Remove the pull-off label from the front of this form and attach it to your sample container.
2. Package this form together with a 16 to 32 ounce sample of your waste stream and send to:

   Approvals Laboratory
   CyanoKEM Inc.
   12381 Schaefer Highway
   Detroit, MI 48227

Copyright 1990 American NuKEM Corp.

#10341 / A.H.
2-14-91

Precision Analytical Lab, Inc
205 West Galena
Milwaukee, WI 53212

Attn:
Phone: (414) 272-5222

E & K Hazardous Waste Service
2905 Paine Ave.
Sheboygan, WI

Attn:
Invoice Number:

Order #: 91-01-059
Date: 02/13/91 16:42
Work ID: EK 6704
Date Received: 01/17/91
Date Completed: 02/13/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	WASTE NITRIC ACID		

Laboratory ID Number (Wisconsin DNR): 241369260

Scott Sherman Linda Woodie
Certified By
Scott Sherman, Linda Woodie

Waste Nitric Acid (bulk)

Disposal Facility: Metro Recovery Systems → Profile #0176067
3430 Rose Place
Roseville, MN 55113
phone: (612) 633-0079
Attn: Peggy Hoffman

2/19/91 Sent copy of this lab report to Metro Recovery.
AH.

TEST RESULTS BY SAMPLE

Sample: 01A WASTE NITRIC ACID Collected: 01/15/91
Job: PROTAM Protocol A, Metals

Test Description	Result	Limit	Units	Analyzed	By
Arsenic, Low Level	<0.05		ppm	01/30/91	LJW
Barium in Waste	0.094		ppm	01/25/91	LJW
Cadmium in Waste	<0.03		ppm	01/25/91	LJW
Chromium in Waste	2.4		ppm	01/25/91	LJW
Copper in Waste	11		ppm	01/25/91	LJW
Lead in Waste	4.0		ppm	01/25/91	LJW
Mercury	0.1		ppm	01/23/91	DAT
Nickel in Waste	17000		ppm	01/25/91	LJW
Selenium, Low Level	<0.05		ppm	01/30/91	LJW
Silver in Waste	<0.10		ppm	01/25/91	LJW
Zinc in Waste	58		ppm	01/25/91	LJW

Sample: 01B WASTE NITRIC ACID Collected: 01/15/91

Test Description	Result	Limit	Units	Analyzed	By
% Chlorine	0.06	1	%	01/30/91	DAT
Acidity	92000		ppm	01/30/91	NRL
Appearance	liquid		-	01/30/91	NRL
Color	green		-	01/30/91	NRL
Cyanide, Free	<10		ppm	01/30/91	NRL
Flash Point, Closed Cup	>210	140	degrees F	01/22/91	MJH
Free Liquids	100		%	01/30/91	NRL
Layers	1		-	01/30/91	NRL
Odor	moderate		-	01/30/91	NRL
Phenol	0.5		ppm	01/28/91	DAT
Specific Gravity	1.09		-	01/30/91	NRL
Sulfide, Reactive	<2		ppm	02/01/91	NRL
Total Solids	9.6		%	01/30/91	NRL
pH	* <1.0		units	01/30/91	NRL

Sample: 01C WASTE NITRIC ACID Collected: 01/15/91
Job: TCLP_I TCLP Inorganic

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Arsenic)	0.05	5.0	mg/l	01/30/91	LJW
TCLP (Barium)	** 0.55	100.0	mg/l	01/25/91	LJW
TCLP (Cadmium)	<0.03	1.0	mg/l	01/25/91	LJW
TCLP (Chromium)	1.3	5.0	mg/l	01/25/91	LJW
TCLP (Copper)	11	100	mg/l	01/25/91	LJW

Test Description	Result	Limit	Units	Analyzed	By
TCLP (Lead)	4.0	5.0	mg/l	01/25/91	LJW
TCLP (Mercury)	0.009	0.2	mg/l	01/30/91	DAT
TCLP (Nickel)	***17000	35	mg/l	01/25/91	LJW
TCLP (Selenium)	<0.010	1.0	mg/l	01/30/91	LJW
TCLP (Silver)	<0.10	5.0	mg/l	01/25/91	LJW
TCLP (Zinc)	57	200	mg/l	01/25/91	LJW
TCLP Inorganic Extraction	-		-	01/23/91	DAT

Sample: 01D WASTE NITRIC ACID Collected: 01/15/91
Job: TCLP_O TCLP Organic

Test Description		Result	Limit	Units	Analyzed	By
8240 TCLP						
Benzene	#	< 500	500	ppb	02/12/91	SRS
Methyl Ethyl Ketone		< 1000	200000	ppb	02/12/91	SRS
Carbon tetrachloride		< 500	500	ppb	02/12/91	SRS
Chlorobenzene		< 500	100000	ppb	02/12/91	SRS
Chloroform		< 500	6000	ppb	02/12/91	SRS
1,2-Dichloroethane		< 500	500	ppb	02/12/91	SRS
1,4-Dichlorbenzene		< 1000	7500	ppb	02/12/91	SRS
1,1-Dichloroethene		< 500	700	ppb	02/12/91	SRS
Tetrachloroethene		< 500	700	ppb	02/12/91	SRS
Trichloroethene		1700	500	ppb	02/12/91	SRS
Pyridine		<50000	5000	ppb	02/12/91	SRS
Vinyl Chloride		< 1000	200	ppb	02/12/91	SRS
8270 TCLP						
2,4-Dinitrotoluene	#	<100	130	ppb	02/08/91	SRS
Hexachlorobenzene		<100	130	ppb	02/08/91	SRS
Hexachloro-1,3-butadiene		<100	500	ppb	02/08/91	SRS
Hexachloroethane		<100	3000	ppb	02/08/91	SRS
Cresol (Total)		<100	200000	ppb	02/08/91	SRS
Nitrobenzene		<100	2000	ppb	02/08/91	SRS
Pentachlorophenol		<500	100000	ppb	02/08/91	SRS
2,4,5-Trichlorophenol		<100	400000	ppb	02/08/91	SRS
2,4,6-Trichlorophenol		<100	2000	ppb	02/08/91	SRS
BNA - Extraction, Waste		-		-		TF
TCLP Organic Extraction		-		-		DP

REPORT COMMENTS

*** Above Waste Management limits
** TCLP Ba greater than total Ba due to matrix interferences.
* Hazard Code D001

The samples ordered for 8240 were analyzed according to Method 8240 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

The samples ordered for 8270 were analyzed according to Method 8270 (SW 846 Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods)

High detection limit due to matrix interference

All analysis as per approved methods found in one or more of the following:
Standard Methods for the Evaluation of Water and Wastewater, 16th Edition.
Methods for Chemical Analysis for Water and Wastes, Revised March 1983, EPA 600/4-79-020
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition 1986 EPA SW846

Analysis performed and certified by Precision Analytical Laboratory.

Sample was covered air tight in approved container, shipped in cooler from the source to our lab, temperature upon arrival was 4 degrees C.

MINNESOTA POLLUTION CONTROL AGENCY
HAZARDOUS WASTE DIVISION
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: HWIMS

For MPCA use only

OMB No. 2050-0039
Expires 9/30/91

PLEASE **TYPE** (Form designed for use on elite (12-pitch) typewriter) or print. **Instructions on cover page.**

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014
Manifest Document No.: 29101

2. Page 1 of 1

Information in shaded area not required by Federal law. Minnesota rules require Items H. and I.

3. Generator's Name and Mailing Address
MANITOWOC EQUIPMENT WORKS
2110 S. 26TH STREET
MANITOWOC, WI 54220

4. Generator's Phone (414/683-6523
24 HOUR PHONE 1-800-688-4005

A. State Manifest Document Number: MN 86223
B. State Generator's ID

5. Transporter 1 Company Name: E&K HAZARDOUS WASTE SERVICES, INC.
6. US EPA ID Number: WID982219529
C. State Transporter's ID
D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
METRO RECOVERY SYSTEMS
2430 ROSE PLACE
ROSEVILLE, MN 55113
10. U.S EPA ID Number: MND981047138
G. State Facility's ID
H. Facility's Phone: 612/633-0079

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	RQ WASTE CORROSIVE LIQUID, N.O.S. NITRIC ACID, UN1760 (D002)	X	001	TT	03800	G	D002
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A. PROFILE #0176067 - NITRIC ACID
ER # 1-800-688-4005
ERG page #60 - attached.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
2 COPIES HAZARDOUS WASTE DATA SHEET GIVEN TO DRIVER

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.

If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment, or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: KENNETH ENGMAN
Signature: [signature]
Date: Month 02 Day 06 Year 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DON MITCHELL
Signature: Don Mitchell
Date: Month 02 Day 06 Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: TONI J. HOWELL
Signature: Toni J. Howell
Date: Month 02 Day 07 Year 91

the Minnesota Division of Emergency Services at 8-0000; the National Response Center, Outside Minnesota, call the National Response Center, and appropriate state agency.

MINNESOTA POLLUTION CONTROL AGENCY
HAZARDOUS WASTE DIVISION
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: HWIMS

For MPCA use only

OMB No. 2050-0039
Expires 9/30/91

PLEASE **TYPE** (Form designed for use on elite (12-pitch) typewriter) or print. **Instructions on cover page.**

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014
Manifest Document No.: 29101

2. Page 1 of 1

Information in shaded area not required by Federal law. Minnesota rules require Items H. and I.

3. Generator's Name and Mailing Address
MANITOWOC EQUIPMENT WORKS
2110 S. 26TH STREET
MANITOWOC, WI 54220

4. Generator's Phone ( ) 414/683-6523 1-800-688-4005

A. State Manifest Document Number: MN 86223

B. State Generator's ID

5. Transporter 1 Company Name: ESE HAZARDOUS WASTE SERVICES, INC.

6. US EPA ID Number: WID982219529

C. State Transporter's ID

D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
METRO RECOVERY SYSTEMS
2430 ROSE PLACE
ROSEVILLE, MN 55113

10. U.S EPA ID Number: MND981098478

G. State Facility's ID

H. Facility's Phone: 612/633-0079

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ WASTE CORROSIVE LIQUID, N.O.S. NITRIC ACID, UN1760 (D002)	X	001	TT	03800	G	D002
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
A. PROFILE #0176067 - NITRIC ACID

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.

If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment, or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name | Signature | Date (Month Day Year): 02 06 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date (Month Day Year): 02 06 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Date (Month Day Year):

In the Minnesota Division of Emergency Services at 612-649-5451; the National Response Center at 800-424-8802; and appropriate state agency. Outside Minnesota, call the National Response Center.

METRO RECOVERY SYSTEMS
2430 Rose Place
Roseville, Minnesota 55113
Telephone 612 633-0079
Fax 612 633-5074

Centralized Recovery and Treatment of Industrial Wastes

40CFR268 LAND DISPOSAL NOTIFICATION

We hereby notify METRO RECOVERY SYSTEMS that the manifested waste shipment identified below contains one or more constituents restricted for land disposal under Federal Regulations, 40CFR268, and must be treated prior to land disposal.

Generator Name: Manitowoc Equipment Works USEPA ID# WID 980520014

Generator Address: 2110 South 26th Street

City/State/Zip: Manitowoc, WI Phone #: 414/683-6523

MRS Hazardous Waste Profile Number: 0176067

State Manifest Document Number: MN 86223

RESTRICTED WASTES: (Check all boxes which apply)

	WASTE CODE AND CATEGORY	TREATABILITY* GROUP	40CFR268 REFERENCE
[ ] A.	D001 Oxidizers	WW and NWW	268.42 DEACT
[X] B.	D002 Acid Liquids	WW and NWW	268.42 DEACT
[ ] C.	D002 Alkaline Liquids	WW and NWW	268.42 DEACT
[ ] D	D002 Other Corrosives	WW and NWW	268.42 DEACT
[ ] E.	D003 Reactive Cyanides	WW and NWW	268.43
[ ] F.	D003 Reactive Sulfides	WW and NWW	268.42 DEACT

(For items G through O circle the waste codes and treatability groups which apply.)

[ ] G.	Arsenic D004, P010, P011, P012	WW NWW	268.43 268.41
[ ] H.	Barium D005, P013	WW NWW	268.43 268.41
[ ] I.	Cadmium D006	WW NWW	268.43 268.41

	WASTE CODE AND CATEGORY	TREATABILITY* GROUP	40CFR REFERENCE
[ ] J.	Chromium D007, U032	WW NWW	268.43 268.41
[ ] K.	Lead D008, U144, U145, U146	WW NWW	268.43 268.41
[ ] L.	Selenium D010, U204, U205	WW NWW	268.43 268.41
[ ] M.	Silver D011, P099, P104	WW NWW	268.43 268.41
[ ] N.	Listed Cyanides P021, P029, P030, P074, P098, P106, P121	WW NWW	268.43 268.41
[ ] O.	Listed Plating Wastes F006, F007, F008, F009, F019	WW NWW	268.43 268.41

[ ] P. Liquid wastes or free liquids from solid wastes with metal concentrations at or above those listed below. (Circle metals which apply.)

Nickel 134 mg/L Thallium 130 mg/L

*WW = Wastewaters NWW = Non-Wastewaters

As an authorized representative of my company, I am personally familiar with all the information contained in this notification and any attachments and certify that it is complete and accurate to the best of my knowledge."

[signature] w/w Pcy. Oper 2/6/91

Signature Title Date

Kenneth Engman

Note: Almost all wastes require Land Restriction Notifications. This form is valid for the majority of wastes accepted by METRO RECOVERY SYSTEMS. If the waste code for your waste does not appear contact MRS for assistance.

(REV 8/6/90)

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Form Approved. OMB No. 2050-0039 Expires 9-30-91

print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. W I D 9 8 0 5 7 0 0 1 4 — Manifest Document No.

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Manitowoc Equipment Works
2110 S. 26th Street
Manitowoc, WI 54220

4. Generator's Phone (414) 683-6523

A. State Manifest Document Number: MI 2302655

B. State Generator's ID

5. Transporter 1 Company Name: E&K Hazardous Waste Services, Inc.

6. US EPA ID Number: W I D 9 8 2 2 1 9 5 2 9

C. State Transporter's ID

D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Michigan Disposal
49350 N. Service Drive
Belleville, MI 48111

10. US EPA ID Number: M I D 0 0 0 7 2 4 8 3 1

G. State Facility's ID

H. Facility's Phone: 313/697-7830

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. RQ Hazardous Waste Solid, n.o.s. ORM-E, NA9189 (F006)	X	013	DM	007745	G	F006	H
b. (Emergency Contact #1-800-688-4005)							
c.							
d.							

GENERATOR

J. Additional Descriptions for Materials Listed Above
a) Profile/Permit #316900MI — Filter Paper & Sludge
E&K Waste Stream Code #6.132
ERG #31

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Kenneth Engman — Signature — Date (Month Day Year): 04 09 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Brian G. Campbell — Signature — Date (Month Day Year): 04 09 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date (Month Day Year)

19. Discrepancy Indication Space

90865

FACILITY

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Date (Month Day Year): 04 11 91

ALL MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)

GENERATOR 2nd COPY

PR 5110 Rev. 9/90

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Form Approved. OMB No. 2050-0039 Expires 9-30-91

print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WID980570014 — Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Manitowoc Equipment Works
2110 S. 26th Street
Manitowoc, WI 54220

4. Generator's Phone (414) 683-6523

A. State Manifest Document Number: MI 2302655

B. State Generator's ID

5. Transporter 1 Company Name: E&K Hazardous Waste Services, Inc.

6. US EPA ID Number: WID982219529

C. State Transporter's ID

D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Michigan Disposal
49350 N. Service Drive
Belleville, MI 48111

10. US EPA ID Number: MID000724831

G. State Facility's ID

H. Facility's Phone: 313/697-7830

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).

	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No	N/H
a.	X RQ Hazardous Waste Solid, n.o.s. ORM-E, NA9189 (F006)	013	DM	480145	G	F006	H
b.	(Emergency Contact #1-800-688-4005)						
c.							
d.							

J. Additional Descriptions for Materials Listed Above
a) Profile/Permit #31690MT - Filter Paper & Sludge
E&K Waste Stream Code #6.132
EEG #31

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Kenneth Ferguson — Signature — Date: Month Day Year 04 19 91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Brian E. Cornell — Signature — Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

AT 1-800-282-9700 OR OUT OF STATE AT 517-373-9700 OR 800-424-8802 24 HOURS PER DAY.

IS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN

EPA Form 8700-22 (Rev. 9/88)

PR 5110 Rev. 9/90

POTENTIAL HAZARDS

FIRE OR EXPLOSION

Some of these materials may burn, but none of them ignites readily.

HEALTH HAZARDS

Contact may cause burns to skin and eyes.
Fire may produce irritating or poisonous gases.
Runoff from fire control or dilution water may cause pollution.

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry.
Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

If water pollution occurs, notify the appropriate authorities.

FIRE

Small Fires: Dry chemical, CO_2, water spray or regular foam.
Large Fires: Water spray, fog or regular foam.
Move container from fire area if you can do it without risk.
Do not scatter spilled material with high-pressure water streams.
Dike fire-control water for later disposal.

SPILL OR LEAK

Stop leak if you can do it without risk.
Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.
Large Spills: Dike far ahead of liquid spill for later disposal.
Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

In case of contact with material, immediately flush eyes with running water for at least 15 minutes. Wash skin with soap and water.
Remove and isolate contaminated clothing and shoes at the site.

F006,F007,F008,F009,F019 - METAL COATING AND ELECTROPLATING WASTES

WA[illegible] WHICH DO NOT MEET TREATMENT STANDARDS NOTICE FROM GENERATOR TO DISPOSAL FACILITY (40 CFR 268.7 (a) (1) (i))

[illegible]ac wastes identified on manifest number MI 2338510 and bearing the EPA Hazardous Waste Number(s) F006 are subject to the land disposal restrictions of 40 CFR Part 268. This waste does not meet the applicable treatment standards specified in Part 268 Subpart D or exceeds the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached. All treatment standards or prohibition levels exceeded by the waste are circled and initialled below.

I. Applicable treatment standards from 40 CFR 268.41 (Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Hazardous Waste	Constituents of concern	NONWASTEWATER Total Composition mg/kg	NONWASTEWATER TCLP mg/L	WASTEWATER Total Composition mg/L
F006 - Wastewater treatment sludges from electroplating operations	Cadmium		0.066	1.6
	Chromium(total)		5.2	0.32
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
	Cyanides(total)	590		1.2
	Cyanides (amenable)	30		0.86
F007- Spent cyanide plating bath solutions from electroplating operations	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F008-Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F009-Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F019-Wastewater treatment sludges from the chemical conversion coating of aluminum	Cyanides(total)	590		1.2
	Cyanides(amenable)	30		0.86
	Chromium(total)		5.2	0.32

Authorized Signature: [illegible] Date: 4/9/91

Kenneth Eng [illegible]

8/90 R2
Form 1

Continued (Over)

Michigan Disposal, Inc.

ENVIRONMENTAL PROTECTION FACILITY
49350 N. I-94 Service Drive
Belleville, Michigan 48111
(313) 697-7830 • FAX: (313) 699-3499

II. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than or equal to the California List Prohibition levels given below?

Yes	No	Constituents
___	___	1,000 mg/kg Halogenated Organic Compounds (HOCs listed in 268 Appendix III)
___	___	50 ppm PCB's (liquid wastes)
___	___	134 mg/L Nickel (liquid wastes)
___	___	130 mg/L Thallium (liquid wastes)

III. Additional Hazardous Characteristics

X No additional Hazardous Characteristics are exhibited by this waste which would require treatment beyond the standards described above.

__ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

IV. Certification

"All treatment standards and prohibition levels applicable to this waste are indicated above."

Company Name: Manitowoc Equipment Works

Authorized Signature: [signature] Date: 4/9/91

Kenneth Engman

8/90 R2

Form 1

E INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN
Chapter 144, Wis. Stats.
Form 4400-66 Rev. 3-89

State of Wisconsin
Department of Natural Resources
Bureau of Solid Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

...t or type. Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID 980570014

Manifest Document No.: 10031

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Manitowoc Equipment Works, 2110 South 26th Street, Manitowoc, WI 54220 Emergency Telephone Number 800-688-4005

4. Generator's Phone (414) 683-7868

A. State Manifest Document Number: WI J 52501

B. State Generator's ID

5. Transporter 1 Company Name: Hydrite Chemical Co.

6. US EPA ID Number: WID 000712935

C. State Transporter's ID

D. Transporter's Phone 414-233-8181

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Avganic Industries
114 North Main
Cottage Grove, WI 53527

10. US EPA ID Number: WID 000808824

G. State Facility's ID

H. Facility's Phone 608-257-1414

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Flammable Liquid N.O.S. (contains toluene and mineral spirits) Flammable liquid UN 1993 (F005)	001	DM	00055	G	F005
b. RQ Waste Flammable Liquid N.O.S. (contains methylene chloride and methanol) Flammable liquid NOS 1993 (F002) UN 1993	005	DM	00055	G	F002

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
a) F003 (Methanol) F002 (Methylene chloride) D018 (Benzene) D001 (Mineral spirits) F001 (Methylene Chloride) Authorization 11328-0-34084
b) F003 (Methanol) F002 (Methylene chloride) Authorization 6511-0-34083

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: Kenneth Engman Treatment W/W Specialist — Signature — Date: Month Day Year

TRANSPORTER

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title: Ray Schroeder — Signature — Date: Month Day Year

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title: DALE J. GUDDEN — Signature — Date: Month Day Year 02 12 6 91

FACIL

19. Discrepancy Indication Space

FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title: Jeffrey Hallock — Signature — Date: Month Day Year

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain
Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance Telephone Number
In Wisconsin (608) 266-3232
Outside Wisconsin (800) 424-8802

COPY 5 — FACILITY SEND TO GENERATOR

..ISTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN
Chapter 144, Wis. Stats.
Form 4400-66 Rev. 3-89

State of Wisconsin
Department of Natural Resources
Bureau of Solid Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

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114 North Main
Cottage Grove, WI 53527

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G. State Facility's ID

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b. RQ Waste Flammable Liquid N.O.S. (contains methylene chloride and methanol) Flammable liquid NOS 1993 (F002) UN 1993	005	DM	00275	G	F002

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K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
a) F003 (Methanol) F002 (Methylene chloride) D018 (Benzene) D001 (Mineral spirits) F001 (Methylene Chloride) Authorization 11328-0-34084
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Printed/Typed Name & Position Title: Kenneth Engman Treatment W/W Specialist — Signature — Date: 02/14/91

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title: RAY Schreiber — Signature — Date: 02/14/91

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title — Signature — Date

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6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance Telephone Number
In Wisconsin (608) 266-3232
Outside Wisconsin (800) 424-8802

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

I. GENERAL INFORMATION

GENERATOR: Manitowoc Equipment Works MANIFEST NO. WIJ 52501-10031

AVGANIC AUTHORIZATION NO. 11328-0-34084

EPA WASTE CODE NOs: F005 F003 F002 D018 D001 F001

Is this waste [X] Nonwastewater or [ ] Wastewater? (See 40 CFR 268.2) Check ON

II. TREATMENT STANDARDS

If the waste identified by any of the following EPA Waste Codes: F001, F002, F003, F004, F005, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40CFR 268.32 and/or RCRA Section 3004(d)), please check the appropriate treatment standard listed in the tables below. All other restricted EPA Waste Codes must be listed in the table on the reverse side including appropriate treatment standards.

SOLVENT WASTE TREATMENT STANDARDS

F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
[ ] Acetone (F003)	0.05	0.59	[X] Methylene chloride (F001,F002)	0.20	0.96
[ ] Benzene (F005)	40 CFR 268.43(a)-0.07	40 CFR 268.43(a)-3.7	[ ] Methylene chloride from pharmaceutical production (F002,F002,F003,F004,F005)	40 CFR 268.43(a)-0.44	0.96
[ ] n-Butyl alcohol (F003)	5.0	5.0	[ ] Methyl ethyl ketone (F005)	0.05	0.75
[ ] Carbon disulfide (F005)	1.05	4.81	[ ] Methyl isobutyl ketone (F003)	0.05	0.33
[ ] Carbon tetrachloride (F001)	0.05	0.96	[ ] Nitrobenzene (F004)	0.66	0.125
[ ] Chlorobenzene (F002)	0.15	0.05	[ ] 2-Nitropropane (F005)	40CFR 268.42-[(WETOX or CHOXD) followed by CARABN] or INCIN	40CFR 268.42 INCIN
[ ] Cresols (and cresylic acid) (F004)	2.82	0.75	[ ] Pyridine (F005)	1.12	0.33
[ ] Cyclohexanone (F003)	0.125	0.75	[ ]Tetrachloroethylene (F001,F002)	0.079	0.05
[ ] 1,2-Dichlorobenzene (F002)	0.65	0.125	[X] Toluene (F005)	1.12	0.33
[ ] 2-Ethoxyethanol (F005) (also called ethylene glycol	40CFR 268.42-INCIN or BIODG	40CFR 268.42-INCIN	[ ] 1,1,1-Trichloroethane (F001,F002)	1.05	0.41
[ ] Ethyl acetate (F003)	0.05	0.75	[ ] 1,1,2-Trichloroethane (F002)	40CFR268.43(a) 0.03	40CFR268.43(a 7.6
[ ] Ethylbenzene (F003)	0.05	0.053	[ ] 1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	1.05	0.96
[ ] Ethyl ether (F003)	0.05	0.75	[X] Trichloroethylene (F001,F002)	0.062	0.091
[ ] Isobutanol (F005)	5.0	5.0	[ ] Trichlorotrifluoromethane (F002)	0.05	0.96
[ ] Methanol (F003)	0.25	0.75	[ ] Xylene (F003)	0.05	0.15

* All spent solvent treatment standards are taken from 40 CFR Part 268.41(a), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

CALIFORNIA LIST TREATMENT STANDARDS - 40 CFR 268.32, 40 CFR 268.42 AND RCRA SECTION 3004(D)

A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to California List restrictions.

Restricted Waste Description	Prohibition	Treatment Standard
[ ] Liquid* or nonliquid waste containing Halogenated Organic Compounds listed in 40 CFR 268, Appendix III	liquid* wastes: ≥ 1,000 mg/l Nonliquid waste: ≥ 1,000 mg/lg	40 CFR 268.42(a)(2)-INCIN
[ ] Liquid* wastes containing Biphenyls (PCBs)	≥ 50 ppm	40 CFR 268.42(a)(1)-INCIN or FSUBS Also see 40 CFR 761.60 and .70
[ ] Liquid* wastes containing Cyanides	Free (amenable to chlorination) cyanides at concentrations ≥ 1,000 mg/l	RCRA Section 3004(d)
Liquid* wastes containing Metals	One or more of the following metals (or) elements) at concentrations ≥ : Arsenic and/or compounds as AS:500 mg/l Cadmium and/or compounds as CDd:100 mg/l Chromium and/or compounds as Cr:500 mg/l Lead and/or compounds as Pb:500 mg/l Mercury and/or compounds as Hg:20 mg/l Nickel and/or compounds as Ni:134 mg/l Selenium and/or compounds as Se:100 mg/l Thallium and/or compounds as Th:130 mg/l	RCRA Section 3004(d)
[ ] Liquid* Acid wastes	pH is ≤ 2.0	RCRA Section 3004(d) and 40 CFR 268.32(a

Report:RCI300 AVGANICS RC INVENTORY 27-Jul-89 08:58 PM
SAMPLE LABORATORY REPORT FORM

Company : MANITOWOC EQUIPMENT WORK
Location: MANITOWOC, WI
Customer Nr:
Salesperson: ANTOINE Branch: 0
Analyzed By: TA Date: 07/26/89
Approved By:

==========

Lab Analysis Nr: A018343
Sales lab Nr: S907125
Incoming Nr:
Retain Lab Nr:
PCB Lab Nr:
Lab Type: WSA
Part Nr: RWD00401
Waste Master Nr: 00011328
Authorization Nr:
Batch Nr:
Lot Nr:
Other Nr:

==========

LABORATORY DATA

Waste Density: 0.836 pH: 5.75
Solvent Density: pH:
Total Distillate: 5/25 Solids: F
% Yield: 15
% Chlorides: PCB (ppm):
Acid Acceptance:
APHA Color: Odor:
BTU/lb: BTU/Gal:
% Water by KF:
Flash Point (TCC Deg F):

==========

Material Comments:
Recommend: CHLOR/ FLAMM DISPOSAL *D-04
Label: FLAMMABLE
UN/NA Nr: UN1993
Dot Hazard Class: FLAMMABLE LIQUID
EPA Waste Code Nr: F002
DOT PSN: WASTE FLAMMABLE LIQUID NOS

==========

Comments:
"UNKNOWN SOLVENT"
TRACES OF WATER AND 1,1,1 TRICHLOROETHANE

*** Information contained is believed to be ***
*** correct to the best of our knowledge ***
*** and based on the sample supplied. ***

CHROMATOGRAPHIC ANALYSIS

----ACTIVES----
0.0 % Acetone
0.0 % N-Butyl Acetate
0.0 % Cyclohexanone
0.0 % Ethyl Acetate
0.0 % Glycol Ether EB
0.0 % Glycol Ether EE
0.0 % Glycol Ether EEAc
0.0 % Glycol Ether EM
0.0 % Glycol Ether EEP
0.0 % Glycol Ether EP
0.0 % Glycol Ether PM
0.0 % Glycol Ether PMA
0.0 % Isobutyl Acetate
0.0 % Isopropyl Acetate
0.0 % MEK
0.0 % MIBK
1.0 % N-Propyl Acetate
0.0 % Tetrahydrofuran

----ALCOHOLS----
0.0 % N-Butanol
0.0 % Ethanol
0.0 % Isobutanol
0.0 % Isopropanol
0.5 % Methanol
7.0 % N-Propanol
0.0 % Water
0.0 % Diacetone Alcohol

----DILUENTS----
0.0 % Heptane
0.0 % Hexane
10.0 % Mineral Spirits
0.0 % 100 Flash Naphtha
0.0 % Stoddard Solvent
19.0 % Toluene
0.0 % VMP Naphtha
0.0 % Xylene

----CHLORINATEDS----
4.0 % Methylene Chloride
0.0 % Perchloroethylene
0.0 % 1,1,1-Trichloroethane
0.0 % 1,1,2-Trichloro-1,2,2-Trifluoroethane
0.5 % Trichloroethylene
0.0 % NOS

--------MISC--------
58.0 % MEDIUM FLASH NAPHTHA
0.0 %
0.0 %
0.0 %
0.0 %
0.0 %

175

METHYLENE CHLORIDE

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

I. GENERAL INFORMATION

GENERATOR: Manitowoc Equipment Works MANIFEST NO. WIJ 52501-10031

AVGANIC AUTHORIZATION NO. 6511-0-34083

EPA WASTE CODE NOs: F002 F003

Is this waste [x] Nonwastewater or [] Wastewater? (See 40 CFR 268.2) Check Ol

II. TREATMENT STANDARDS

If the waste identified by any of the following EPA Waste Codes: F001, F002, F003, F004, F005, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40CFR 268.32 and/or RCRA Section 3004(d)), please check the appropriate treatment standard listed in the tables below. All other restricted EPA Waste Codes must be listed in the tabl on the reverse side including appropriate treatment standards.

SOLVENT WASTE TREATMENT STANDARDS

F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
[] Acetone (F003)	0.05	0.59	[X] Methylene chloride (F001,F002)	0.20	0.96
[] Benzene (F005)	40 CFR 268.43(a)-0.07	40 CFR 268.43(a)-3.7	[] Methylene chloride from pharmaceutical production (F002,F002,F003,F004,F005)	40 CFR 268.43(a)-0.44	0.96
[] n-Butyl alcohol (F003)	5.0	5.0	[] Methyl ethyl ketone (F005)	0.05	0.75
[] Carbon disulfide (F005)	1.05	4.81	[] Methyl isobutyl ketone (F003)	0.05	0.33
] Carbon tetrachloride (F001)	0.05	0.96	[] Nitrobenzene (F004)	0.66	0.125
[] Chlorobenzene (F002)	0.15	0.05	[] 2-Nitropropane (F005)	40CFR 268.42-[(WETOX or CHOXD) followed by CARABN] or INCIN	40CFR 268.42 INCIN
[] Cresols (and cresylic acid) (F004)	2.82	0.75	[] Pyridine (F005)	1.12	0.33
[] Cyclohexanone (F003)	0.125	0.75	[]Tetrachloroethylene (F001,F002)	0.079	0.05
[] 1,2-Dichlorobenzene (F002)	0.65	0.125	[] Toluene (F005)	1.12	0.33
[] 2-Ethoxyethanol (F005) (also called ethylene glycol	40CFR 268.42-INCIN or BIODG	40CFR 268.42-INCIN	[] 1,1,1-Trichloroethane (F001,F002)	1.05	0.41
[] Ethyl acetate (F003)	0.05	0.75	[] 1,1,2-Trichloroethane (F002)	40CFR268.43(a) 0.03	40CFR268.43(7.6
[] Ethylbenzene (F003)	0.05	0.053	[] 1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	1.05	0.96
[] Ethyl ether (F003)	0.05	0.75	[] Trichloroethylene (F001,F002)	0.062	0.091
[] Isobutanol (F005)	5.0	5.0	[] Trichlorotrifluoromethane (F002)	0.05	0.96
[X] Methanol (F003)	0.25	0.75	[] Xylene (F005)	0.05	0.15

* All spent solvent treatment standards are taken from 40 CFR Part 268.41(a), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

CALIFORNIA LIST TREATMENT STANDARDS - 40 CFR 268.32, 40 CFR 268.42 AND RCRA SECTION 3004(D)

A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to California List restrictions.

Restricted Waste Description	Prohibition	Treatment Standard
[X] Liquid* or nonliquid waste containing Halogenated Organic Compounds listed in 40 CFR 268, Appendix III	liquid* wastes: ≥ 1,000 mg/l Nonliquid waste: ≥ 1,000 mg/lg	40 CFR 268.42(a)(2)-INCIN
[] Liquid* wastes containing Biphenyls (PCBs)	≥ 50 ppm	40 CFR 268.42(a)(1)-INCIN or FSUBS Also see 40 CFR 761.60 and .70
[] Liquid* wastes containing Cyanides	Free (amenable to chlorination) cyanides at concentrations ≥ 1,000 mg/l	RCRA Section 3004(d)
Liquid* wastes containing Metals	One or more of the following metals (or) elements) at concentrations ≥ : Arsenic and/or compounds as AS:500 mg/l Cadmium and/or compounds as CDd:100 mg/l Chromium and/or compounds as Cr:500 mg/l Lead and/or compounds as Pb:500 mg/l Mercury and/or compounds as Hg:20 mg/l Nickel and/or compounds as Ni:134 mg/l Selenium and/or compounds as Se:100 mg/l Thallium and/or compounds as Th:130 mg/l	RCRA Section 3004(d)
[] Liquid* Acid wastes	pH is ≤ 2.0	RCRA Section 3004(d) and 40 CFR 268.32(a

eport:RCI300 AVGANICS RC INVENTORY 19-Dec-90 02:46 PM
SAMPLE LABORATORY REPORT FORM

ompany : MANITOWOC EQUIP
oc ion:
s mer Nr: MA1474
alesperson: Branch: 0
nalyzed By: TP Date: 09/27/90
pproved By: TA

==========

ab Analysis Nr: A033246
ales lab Nr:
ncoming Nr: I009546
etain Lab Nr:
CB Lab Nr: P009186
ab Type: QCA
art Nr: RWR030MR
aste Master Nr: 00006511
uthorization Nr: 030215
atch Nr:
ot Nr:
ther Nr:

==========

LABORATORY DATA

aste Density: 1.170 pH: 7.40
ol nt Density: pH:
Distillate: 17/26 Solids: F
% Yield: 65
Chlorides: PCB (ppm):
cid Acceptance:
PHA Color: Odor:
TU/lb: BTU/Gal:
Water by KF:
lash Point (TCC Deg F):

==========

aterial Comments: MECLZ
ecommend:
abel:
N/NA Nr:
ot Hazard Class:
PA Waste Code Nr:
OT PSN:

==========

omments:
DRUMS

*** Information contained is believed to be ***
*** correct to the best of our knowledge ***
*** and based on the sample supplied. ***

CHROMATOGRAPHIC ANALYSIS

----ACTIVES----
0.0 % Acetone
0.0 % N-Butyl Acetate
0.0 % Cyclohexanone
0.0 % Ethyl Acetate
0.0 % Glycol Ether EB
0.0 % Glycol Ether EE
0.0 % Glycol Ether EEAc
0.0 % Glycol Ether EM
0.0 % Glycol Ether EEP
0.0 % Glycol Ether EP
0.0 % Glycol Ether PM
0.0 % Glycol Ether PMA
0.0 % Isobutyl Acetate
0.0 % Isopropyl Acetate
0.0 % MEK
0.0 % MIBK
0.0 % N-Propyl Acetate
0.0 % Tetrahydrofuran

----ALCOHOLS----
0.0 % N-Butanol
0.0 % Ethanol
0.0 % Isobutanol
0.0 % Isopropanol
17.5 % Methanol
0.0 % N-Propanol
0.5 % Water
0.0 % Diacetone Alcohol

----DILUENTS----
0.0 % Heptane
0.0 % Hexane
0.0 % Mineral Spirits
0.0 % 100 Flash Naphtha
0.0 % Stoddard Solvent
0.0 % Toluene
0.0 % VMP Naphtha
0.0 % Xylene

----CHLORINATEDS----
81.5 % Methylene Chloride
0.0 % Perchloroethylene
0.0 % 1,1,1-Trichloro-ethane
0.0 % 1,1,2-Trichloro-1,2,2-Trifluoroethane
0.0 % Trichloroethylene
0.0 % NOS

---------MISC---------
0.5 % L.B. NOS
0.0 %
0.0 %
0.0 %
0.0 %
0.0 %

METH. CHLOR.

'E INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN
Chapter 144, Wis. Stats.
Form 4400-66 Rev. 3-89

State of Wisconsin
Department of Natural Resources
Bureau of Solid Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

..nt or type. Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WID 980570014

Manifest Document No. 1010511

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address Manitowoc Equipment Works, 2110 S. 26th Street, Manitowoc, Wi 54220 Emergency Phone

4. Generator's Phone (414 683-7868 800-688-4005

A. State Manifest Document Number WI J 52503

B. State Generator's ID

5. Transporter 1 Company Name Hydrite Chemical Co.

6. US EPA ID Number WID 000712935

C. State Transporter's ID

D. Transporter's Phone 414-233-8181

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address Avganic Industries 114 North Main Cottage Grove, WI 53527

10. US EPA ID Number WIS000808824

G. State Facility's ID

H. Facility's Phone 608-257-1414

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste, Liquid. N.O.S. ORM-E NA 9189 (contains Dioctylphthalate)	002	DM	00687	P	N 0 0 N E
b. RQ Waste Flammable Liquid (contains Methylene Chloride and Methanol) Flammable liquid UN 1993 (F002)	0 0 2	DM	01229	P	F 0 0 2
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency response guides on back @ guide 31 (b) guides 28/74
a) 17978-0- ~~41487~~ 41489
b) 6511-0- 41017

a) 687 LBS
b) 1,229 LBS

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: Kenneth Engman W/W Plant Operator — Signature — Date: Month 1 Day 15 Year 91

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title — Signature — Date: Month Day Year

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title: Junior Rehmann driver — Signature — Date: Month 1 Day 11 Year 91

19. Discrepancy Indication Space

FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title: JACK M. GANDER — Signature — Date: Month 1 Day 12 Year 91

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance Telephone Number
In Wisconsin (608) 266-3232
Outside Wisconsin (800) 424-8802

E INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN
Chapter 144, Wis. Stats.
Form 4400-66 Rev. 3-89

State of Wisconsin
Department of Natural Resources
Bureau of Solid Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

nt or type. Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WID 980570014

Manifest Document No. 10051

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address Manitowoc Equipment Works, 2110 S. 26th Street, Manitowoc, Wi 54220

Emergency Phone 800-688-4005

4. Generator's Phone (414 683-7868

A. State Manifest Document Number WI J 52503

B. State Generator's ID

5. Transporter 1 Company Name Hydrite Chemical Co.

6. US EPA ID Number WID 000712935

C. State Transporter's ID

D. Transporter's Phone 414-233-8181

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Avganic Industries
114 North Main
Cottage Grove, WI 53527

10. US EPA ID Number WIS000808824

G. State Facility's ID

H. Facility's Phone 608-257-1414

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste, Liquid. N.O.S. ORM-E NA 9189 (contains Dioctylphthalate)	002	DM	00687	P	NONE
b. RQ Waste Flammable Liquid (contains Methylene Chloride and Methanol) Flammable liquid UN 1993 (F002)	002	DM	01229	P	F002
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency response guides on back @ guide 31 (b) guides 28/74
a) 17978-0-[redacted] 41489
b) 6511-0- 41017

a) 687 LBS
b) 1,229 LBS

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OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: Kenneth Engman, W/W Plant Operator — Signature — Date: 11 05 91

TRANSPORTER

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title: DALE J. GUDDEN — Signature — Date: 11 05 91

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title — Signature — Date

FACILITY

19. Discrepancy Indication Space

FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title — Signature — Date

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

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2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance Telephone Number
In Wisconsin (608) 266-3232
Outside Wisconsin (800) 424-8802

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

. GENERAL INFORMATION

GENERATOR: Manitowoc Equipment Works MANIFEST NO. WID 52502-1005

AVGANIC AUTHORIZATION NO. 6511-0-41017

EPA WASTE CODE NOs: F002 F003

Is this waste [✓] Nonwastewater or [ ] Wastewater? (See 40 CFR 268.2) Check ON

II. TREATMENT STANDARDS

If the waste identified by any of the following EPA Waste Codes: F001, F002, F003, F004, F005, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40CFR 268.32 and/or RCRA Section 3004(d)), please check the appropriate treatment standard listed in the tables below. All other restricted EPA Waste Codes must be listed in the table on the reverse side including appropriate treatment standards.

SOLVENT WASTE TREATMENT STANDARDS

F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard *	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
[ ] Acetone (F003)	0.05	0.59	[✓] Methylene chloride (F001,F002)	0.20	0.96
[ ] Benzene (F005)	40 CFR 268.43(a)-0.07	40 CFR 268.43(a)-3.7	[ ] Methylene chloride from pharmaceutical production (F002,F002,F003,F004,F005)	40 CFR 268.43(a)-0.44	0.96
[ ] n-Butyl alcohol (F003)	5.0	5.0	[ ] Methyl ethyl ketone (F005)	0.05	0.75
[ ] Carbon disulfide (F005)	1.05	4.81	[ ] Methyl isobutyl ketone (F003)	0.05	0.33
[ ] Carbon tetrachloride (F001)	0.05	0.96	[ ] Nitrobenzene (F004)	0.66	0.125
[ ] Chlorobenzene (F002)	0.15	0.05	[ ] 2-Nitropropane (F005)	40CFR 268.42-[(WETOX or CHOXD) followed by CARABN] or INCIN	40CFR 268.42 INCIN
[ ] Cresols (and cresylic acid) (F004)	2.82	0.75	[ ] Pyridine (F005)	1.12	0.33
[ ] Cyclohexanone (F003)	0.125	0.75	[ ] Tetrachloroethylene (F001,F002)	0.079	0.05
[ ] 1,2-Dichlorobenzene (F002)	0.55	0.125	[ ] Toluene (F005)	1.12	0.33
[ ] 2-Ethoxyethanol (F005) (also called ethylene glycol	40CFR 268.42-INCIN or BIODG	40CFR 268.42-INCIN	[ ] 1,1,1-Trichloroethane (F001,F002)	1.05	0.41
[ ] Ethyl acetate (F003)	0.05	0.75	[ ] 1,1,2-Trichloroethane (F002)	40CFR268.43(a) 0.03	40CFR268.43(7.6
[ ] Ethylbenzene (F003)	0.05	0.053	[ ] 1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	1.05	0.96
[ ] Ethyl ether (F003)	0.05	0.75	[ ] Trichloroethylene (F001,F002)	0.062	0.091
[ ] Isobutanol (F005)	5.0	5.0	[ ] Trichlorotrifluoromethane (F002)	0.05	0.96
[✓] Methanol (F003)	0.25	0.75	[ ] Xylene (F003)	0.05	0.15

* All spent solvent treatment standards are taken from 40 CFR Part 268.41(a), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

CALIFORNIA LIST TREATMENT STANDARDS - 40 CFR 268.32, 40 CFR 268.42 AND RCRA SECTION 3004(D)

A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to California List restrictions.

Restricted Waste Description	Prohibition	Treatment Standard
[ ] Liquid* or nonliquid waste containing Halogenated Organic Compounds listed in 40 CFR 268, Appendix III	liquid* wastes: ≥ 1,000 mg/l Nonliquid waste: ≥ 1,000 mg/lg	40 CFR 268.42(a)(2)-INCIN
[ ] Liquid* wastes containing Biphenyls (PCBs)	≥ 50 ppm	40 CFR 268.42(a)(1)-INCIN or FSUBS Also see 40 CFR 761.60 and .70
[ ] Liquid* wastes containing Cyanides	Free (amenable to chlorination) cyanides at concentrations ≥ 1,000 mg/l	RCRA Section 3004(d)
[ ] Liquid* wastes containing Metals	One or more of the following metals (or) elements) at concentrations ≥ : Arsenic and/or compounds as AS:500 mg/l Cadmium and/or compounds as CDd:100 mg/l Chromium and/or compounds as Cr:500 mg/l Lead and/or compounds as Pb:500 mg/l Mercury and/or compounds as Hg:20 mg/l Nickel and/or compounds as Ni:134 mg/l Selenium and/or compounds as Se:100 mg/l Thallium and/or compounds as Th:130 mg/l	RCRA Section 3004(d)
[ ] Liquid* Acid wastes	pH is ≤ 2.0	RCRA Section 3004(d) and 40 CFR 268.32(

WASTE MATERIAL DOCUMENT

HYDRITE CHEMICAL CO.

Oshkosh, WI (800) 242-8270
La Crosse, WI (608) 784-0024
Milwaukee, WI (414) 792-1450
Cottage Grove, WI (608) 257-5892
Waterloo, IA (319) 232-9731

AUTHORIZATION NO. _____ DATE _____

CUSTOMER _____

ADDRESS _____

_____

☐ DRUMS ☐ BULK ☐ DRUM LANCE

QUANTITY **DOT** PROPER SHIPPING NAME

_____ _____

DOT HAZARD CLASS UN/NA NO.

_____ _____

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 applicable regulations of the Department of Transportation.

CUSTOMER SIGNATURE: _____

DRIVER _____ UNIT NO. _____

WHITE: SALES COPY YELLOW: PLANT COPY PINK: DIVISION COPY GOLD: CUSTOMER COPY

WMD391H25C

WASTE MATERIAL DOCUMENT

HYDRITE CHEMICAL CO.

Oshkosh, WI (800) 242-8270
La Crosse, WI (608) 784-0024
Milwaukee, WI (414) 792-1450
Cottage Grove, WI (608) 257-5892
Waterloo, IA (319) 232-9731

AUTHORIZATION NO. _____ DATE _____

CUSTOMER _____

ADDRESS _____

_____

☐ DRUMS ☐ BULK ☐ DRUM LANCE

QUANTITY **DOT** PROPER SHIPPING NAME

_____ _____

DOT HAZARD CLASS UN/NA NO.

_____ _____

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 applicable regulations of the Department of Transportation.

CUSTOMER SIGNATURE: _____

DRIVER _____ UNIT NO. _____

WHITE: SALES COPY YELLOW: PLANT COPY PINK: DIVISION COPY GOLD: CUSTOMER COPY

WMD391H25C

avganic

WASTE PROCESSING
CERTIFICATION OF DESTRUCTION

This document certifies that the material listed on the attached manifest, numbered WI J 52503, will be beneficially recycled or reused by Avganic Industries, Inc., located in Cottage Grove, Wisconsin (EPA ID# WID000808824).

The waste residues from our operation will be utilized in a secondary fuel stream and thermally destroyed in a RCRA permitted cement kiln.

Any material which cannot be treated as indicated above will be thermally destroyed at a licensed incinerator or aggregate kiln.

.tainers used to transfer material to Avganic Industries, Inc., will .e recycled for further use at an approved drum reconditioner.

Authorized Signature

AVGANIC INDUSTRIES, INC.
COTTAGE GROVE, WI 53527

avganic industries, inc. • P.O. BOX 276 • 114 NORTH MAIN STREET • COTTAGE GROVE, WI 53527 • PHONE 608/257-1414 • FACSIMILE 608/839-4293
BRANCH OFFICE: 1330 LOCKPORT ROAD • TERRE HAUTE, INDIANA 47802 • PHONE 812/232-5411 • FACSIMILE 812/232-1148

avganic

WASTE PROCESSING
CERTIFICATION OF DESTRUCTION

This document certifies that the material listed on the attached manifest, numbered WI J 52503, will be beneficially recycled or reused by Avganic Industries, Inc., located in Cottage Grove, Wisconsin (EPA ID# WID000808824).

The waste residues from our operation will be utilized in a secondary fuel stream and thermally destroyed in a RCRA permitted cement kiln.

Any material which cannot be treated as indicated above will be thermally destroyed at a licensed incinerator or aggregate kiln.

Containers used to transfer material to Avganic Industries, Inc., will be recycled for further use at an approved drum reconditioner.

Authorized Signature

AVGANIC INDUSTRIES, INC.
COTTAGE GROVE, WI 53527

avganic industries, inc. • P.O. BOX 276 • 114 NORTH MAIN STREET • COTTAGE GROVE, WI 53527 • PHONE 608/257-1414 • FACSIMILE 608/839-4293
BRANCH OFFICE: 1330 LOCKPORT ROAD • TERRE HAUTE, INDIANA 47802 • PHONE 812/232-5411 • FACSIMILE 812/232-1148

#3

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Form Approved: OMB No. 2050-0039 Expires 9-30-91

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014 — Manifest Document No.: 1092
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Manitowoc Equipment Works, 2110 S. 26th Street, Manitowoc, WI 54220

A. State Manifest Document Number: MI 2588285

B. State Generator's ID:

4. Generator's Phone (414) 683-7868

5. Transporter 1 Company Name: E&K Hazardous Waste Services, Inc.
6. US EPA ID Number: WID982219529

C. State Transporter's ID:
D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name: E+K Hazardous Waste Services Inc
8. US EPA ID Number: WID982219529

E. State Transporter's ID:
F. Transporter's Phone: 414/458-6030

9. Designated Facility Name and Site Address: Michigan Disposal, Inc., 49350 N. I-94 Service Drive, Belleville, MI 48111
10. US EPA ID Number: MID000724831

G. State Facility's ID:
H. Facility's Phone: 313/697-7830

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ Hazardous Waste Liquid, n.o.s. (Trichloroethylene) ORM-E, NA9189	005	DM	00275	G	D040	H
b.	X	RQ Hazardous Waste Solid, n.o.s. ORM-E, NA 9189 (F007)	002	DM	00140	G	F007	H
c.		Emergency Contact #1-800-688-4005						
d.								

J. Additional Descriptions for Materials Listed Above
a.) #102491, MA Nickel Filters, E&K WSC #6.180, ERG #31
b.) #111191 MV, Cyanide Filters, E&K WSC #6.178, ERG #31
a) 1155 LBS b) 240 LBS

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Kenneth Engman — Signature: [signature] — Date: Month Day Year 11 18 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WARREN A. MITCHELL — Signature: Warren A. Mitchell — Date: Month Day Year 11 18 91

18. Transporter 2 Acknowledgement or Receipt of Materials
Printed/Typed Name: ROBERT TERNES — Signature: Robert A. Ternes — Date: Month Day Year 11 22 91

19. Discrepancy Indication Space
(A) 100043 (B) 100044

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Thomas B. [signature] — Signature: [signature] — Date: Month Day Year 11 22 91

GENERATOR

TRANSPORTER

FACILITY

PILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)

PR 5110 Rev. 9/90

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Form Approved. OMB No. 2050-0039 Expires 9-30-91

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: MID980570014 — Manifest Document No.: 11892
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Manitowoc Equipment Works, 2110 S. 26th Street, Manitowoc, WI 54220
4. Generator's Phone (414) 683-7868

A. State Manifest Document Number: MI 2588285
B. State Generator's ID:

5. Transporter 1 Company Name: E&K Hazardous Waste Services, Inc.
6. US EPA ID Number: WID982219529
C. State Transporter's ID:
D. Transporter's Phone: 414/458-6030

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: Michigan Disposal, Inc., 49350 N. I-94 Service Drive, Belleville, MI 48111
10. US EPA ID Number: MID000724831
G. State Facility's ID:
H. Facility's Phone: 313/697-7830

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ Hazardous Waste Liquid, n.o.s. (Trichloroethylene) ORM-E, NA9189	005	DM	00275	G	D040	H
b.	X	RQ Hazardous Waste Solid, n.o.s. ORM-E, NA 9189 (F007)	002	DM	00140	G	F007	H
c.		Emergency Contact #1-800-688-4005						
d.								

J. Additional Descriptions for Materials Listed Above:
a.) #102491, MA Nickel Filters, E&K WSC #6.180, ERG #31
b.) #111191 MV, Cyanide Filters, E&K WSC #6.178, ERG #31
a) 1155 LBS b) 240 LBS

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Kenneth Engman — Signature: [signature] — Date: Month Day Year: 11 18 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WARREN A. MITCHELL — Signature: Warren A. Mitchell — Date: Month Day Year: 11 18 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: — Signature: — Date: Month Day Year:

GENERATOR / TRANSPORTER / FACILITY

ALL CERTIFICATIONS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) PR 5110 Rev. 9/90

Cyanide Filters

MI 2588285

F006,F007,F008,F009,F019 - METAL COATING AND ELECTROPLATING WASTES

; WHICH DO NOT MEET TREATMENT STANDARDS NOTICE FROM GENERATOR TO DISPOSAL FACILITY (40 CFR 268.7 (a) (1) (i))

The wastes identified on manifest number MI 2588285 and bearing the EPA Hazardous Waste Number(s) F007 are subject to the land disposal restrictions of 40 CFR Part 268. This waste does not meet the applicable treatment standards specified in Part 268 Subpart D or exceeds the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached. All treatment standards or prohibition levels exceeded by the waste are circled and initialled below.

M.E.W.

Copy

i. Applicable treatment standards from 40 CFR 268.41 (Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW

Hazardous Waste	Constituents of concern	NONWASTEWATER Total Composition mg/kg	TCLP mg/L	WTCH
F006 - Wastewater treatment sludges from electroplating operations	Cadmium		0.066	
	Chromium(total)		5.2	
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
	Cyanides(total)	590		1.2
	Cyanides (amenable)	30		0.86
F007- Spent cyanide plating bath solutions from electroplating operations	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F008-Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F009-Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	Cadmium		0.066	
	Chromium(total)		5.2	0.32
	Cyanides(total)	590		1.9
	Cyanides(amenable)	30		0.1
	Lead		0.51	0.04
	Nickel		0.32	0.44
	Silver		0.072	
F019-Wastewater treatment sludges from the chemical conversion coating of aluminum	Cyanides(total)	590		1.2
	Cyanides(amenable)	30		0.86
	Chromium(total)		5.2	0.32

Authorized Signature: [signature] Date: 11/18/91

8/90 R2
Form 1

Continued (Over)

Michigan Disposal, Inc.

ENVIRONMENTAL PROTECTION FACILITY
49350 N. I-94 Service Drive
Belleville, Michigan 48111
(313) 697-7830 • FAX: (313) 699-3499

MI 2588285

511 - TOXICITY CHARACTERISTIC HAZARDOUS WASTE

WASTES WHICH DO NOT MEET TREATMENT STANDARDS NOTICE FROM GENERATOR TO DISPOSAL FACILITY (40 CFR 268.7 (a) (1) (i))

The wastes identified on manifest number MI 2588285 and bearing the EPA Hazardous Waste Number(s) F007 are subject to the land disposal restrictions of 40 CFR Part 268. This waste does not meet the applicable treatment standards specified in Part 268 Subpart D or exceeds the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached. All treatment standards or prohibition levels exceeded by the waste are circled and initialled below.

I. Applicable treatment standards from 40 CFR 268.41 (Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Hazardous Waste Description	Constituents of concern	NONWASTEWATER Total Composition mg/kg	NONWASTEWATER TCLP mg/L	WASTEWATER Total Composition mg/L
D004 - Arsenic	Arsenic		6	5
D005 - Barium	Barium		100	100
D006 - Cadmium	Cadmium		1	1
D006 - Cadmium batteries		RTHRM		N.A.
D007 - Chromium	Chromium(total)		6	5
D008 - Lead			5	5
D008 - Lead acid batteries		RLEAD		N.A.
D009 - Low-mercury sub-category (< 260 mg/kg total Hg)	Mercury		0.2	0.2
D009 - High-mercury sub-category (> 260 mg/kg total Hg)		IMERC,RMERC		0.2
D010 - Selenium	Selenium		5.7	1
D011 - Silver	Silver		5	5

II. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than the California List Prohibition levels given below?

Yes	No	Constituents
	X	1,000 mg/kg Halogenated Organic Compounds (HOC's listed in 168.32 Appendix III
	X	50 ppm. PCB's (liquid wastes)
	X	134 mg/L Nickel (liquid wastes)
	X	130 mg/L Thallium (liquid wastes)

III. Additional Hazardous Characteristics

X No additional Hazardous Characteristics are exhibited by this waste which would require treatment beyond the standards described above.

__ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

IV. Certification

"All treatment standards and prohibition levels applicable to this waste are indicated above."

Company Name: Manitowoc Equipment Works

Authorized Signature: [signature] Date: 11/18/91

8/90 R2

Form 1

Michigan Disposal, Inc.

ENVIRONMENTAL PROTECTION FACILITY
49350 N. I-94 Service Drive

Nickel Filters

Manifest # MI 2588285

MDI # 102491 MA

MEW COPY

D002 - CORROSIVE CHARACTERISTIC HAZARDOUS WASTE

WASTES MEETING ALL APPLICABLE TREATMENT STANDARDS NOTICE AND CERTIFICATION FROM GENERATOR TO DISPOSAL FACILITY (40 CFR 268.7 (a) (2) (i))

The wastes identified on manifest number MI 2588285 and bearing the EPA Hazardous Waste Number(s) D040 are subject to the land disposal restrictions of 40 CFR Part 268. This waste complies with the applicable treatment standards specified in Part 268 Subpart D, the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached.

I. Applicable treatment standards from 40 CFR 268.41 (Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Hazardous Waste	Constituents of concern	NONWASTEWATER Total Composition mg/kg	NONWASTEWATER TCLP mg/L	WASTEWATER Total Composition mg/L
Acid corrosives		DEACT		DEACT
Alkaline corrosives		DEACT		DEACT
Other corrosives		DEACT		DEACT

II. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than or equal to the California List Prohibition levels given below?

Yes	No	Constituents
___	___	1,000 mg/kg Halogenated Organic Compounds (HOC's listed in 268 Appendix III)
___	___	50 ppm. PCB's (liquid wastes)
___	___	134 mg/L Nickel (liquid wastes)
___	___	130 mg/L Thallium (liquid wastes)

III. Additional Hazardous Characteristics (select one)

X No additional Hazardous Characteristics are exhibited by this waste which would require treatment beyond the standards described above.

__ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

IV. Certification

As required by 40 CFR 268.7 (a) (2), the following certification is made for these restricted wastes:

" I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004 (d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

Company Name: Manitowoc Equipment Works

Authorized Signature: _____ Date: 11/18/91

8/90 R2

Form 2

Michigan Disposal, Inc.

ENVIRONMENTAL PROTECTION FACILITY
49350 N. I-94 Service Drive
Belleville, Michigan 48111
(313) 697-7830 • FAX: (313) 699-3499

D004-D011 - TOXICITY CHARACTERISTIC HAZARDOUS WASTE

Manifest # MI 2588285

WASTES MEETING ALL APPLICABLE TREATMENT STANDARDS NOTICE AND CERTIFICATION FROM GENERATOR TO DISPOSAL FACILITY (40 CFR 268.7 (a) (2) (i))

The wastes identified on manifest number MI 2588285 and bearing the EPA Hazardous Waste Number(s) D040 — are subject to the land disposal restrictions of 40 CFR Part 268. This waste complies with the applicable treatment standards specified in Part 268 Subpart D, the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached.

I. Applicable treatment standards from 40 CFR 268.41 (Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Hazardous Waste Description	Constituents of concern	NONWASTEWATER Total Composition mg/kg	NONWASTEWATER TCLP mg/L	WASTEWATER Total Composition mg/L
D004-Arsenic	Arsenic		5 **	5
D005-Barium	Barium		100	100
D006-Cadmium	Cadmium		1	1
D007-Chromium	Chromium(total)		5	5
D008-Lead			5	5
D009-Low-mercury sub-category (< 260 mg/kg total Hg)	Mercury		0.2 **	0.2
D009-High-mercury sub-category (> 260 mg/kg total Hg)		IMERC.RMERC **		0.2
D010-Selenium	Selenium		5.7	1
D011-Silver	Silver		5	5

** This waste is exempt from treatment standards until May 8, 1992

II. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than or equal to the California List Prohibition levels given below?

Yes	No	Constituents
__	__	1,000 mg/kg Halogenated Organic Compounds (HOC's listed in Appendix III)
__	__	50 ppm. PCB's (liquid wastes)
__	__	134 mg/L Nickel (liquid wastes)
__	__	130 mg/L Thallium (liquid wastes)

III. Additional Hazardous Characteristics (select one)

X No additional Hazardous Characteristics are exhibited by this waste which would require treatment beyond the standards described above.

__ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

IV. Certification

As required by 40 CFR 268.7 (a) (2), the following certification is made for these restricted wastes:

" I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004 (d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

Company Name: Manitowoc Equipment Works

Authorized Signature: [signature] Date: 11/18/91

8/90 R2

Form 2

Michigan Disposal, Inc.

ENVIRONMENTAL PROTECTION FACILITY
49350 N. I-94 Service Drive
Belleville, Michigan 48111
(313) 697-7830 • FAX: (313) 699-3499

MDI # 102491 MA Nickel Filters

ATTACHMENT 11
ACCUMULATION IN SPILL CONTAINMENT TANKS BY GENERATORS INSPECTION FORM
HAZARDOUS WASTE MANAGEMENT PROGRAM
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

* The inspector will need Attachment 1 (Tank Standards for SQG's) or a copy of the code to answer question E for SQG's.

Note: If hazardous waste is routinely discharged to the tank as a part of normal operating procedures, the tank does not meet the definition of a spill containment tank and all applicable tank standards apply.

I. GENERAL INFORMATION

DEPARTMENT INFORMATION

DNR District: NER Inspection date: 12-21-99

GENERATOR INFORMATION

Generator Name: MANITOWOC ICE, INC.

U.S. EPA I.D. #: WID 980570014 FID #: 436017560

Generator Location:

Street: 2110 26TH ST.

City: MANITOWOC County: MANITOWOC Zip: 54221-1720

II. REQUIREMENTS

A. Is the tank an integral part of a spill containment system which is used to collect hazardous waste from a spill or leak? (LQG only, NR 615.05(5)(a)) — (Yes) No NA

B. Is the tank maintained empty, unless a spill or leak occurs? NR 610.08(3)(a) or NR 615.05(5)(b) — (Yes) No

C. Does the generator remove all hazardous wastes from the tank within 24 hours or at the earliest practical time? NR 610.08(3)(b) or NR 615.05(5)(c) — (Yes) No

D. Does the generator manage any hazardous waste which is removed from the tank in accordance with the hazardous waste management rules? NR 610.08(3)(d) or NR 615.05(5)(e) — (Yes) No

E. For SQG's, answer Question 1*. NR 610.08(3)(c) For LQG's, answer Question 2. NR 615.05(5)(d)

1. Does the generator comply with all applicable tank standards found in NR 610.08(1)(n) for SQG's? Complete Attachment 1 and attach to this form. Yes No NA

Comments: _____

_____

_____

Note: Form is complete for small quantity generators.

2. a. Does the generator inspect all spill containment tanks at least weekly for evidence of leakage, corrosion, or deterioration; or discharge confinement structures? NR 615.05(4)(a)3.a. Yes No

b. Does the generator inspect all spill containment tanks once each operating day to insure that discharge control equipment is in good working order, the tank is being operated according to its design, and to ensure that the level of waste in the tank complies with Question f below? NR 615.05(4)(a)3.b. Yes No

c. Does the generator record the inspections under Question a above in an inspection log or summary, including the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions? NR 615.05(4)(a)3.c. Yes No

d. Is incompatible waste allowed to discharge to this tank? NR 615.05(4)(a)3.d. Yes No

e. Are tanks containing volatile waste operated in accordance with applicable air management rules in chs. NR 400-499 regarding the control of organic compound emissions? NR 615.05(4)(a)3.e. Note: The inspector should make the generator aware that these requirements may apply to this tank. Yes No NA

f. Are uncovered tanks operated to ensure at least 2 feet of freeboard? NR 615.05(4)(a)3.f. Yes No NA

g. Is the tank made with or lined with materials that will ensure that hazardous waste that may discharge to it will not cause the tank or inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life? NR 615.05(4)(a)3.g. Yes No

h. If ignitable or reactive waste is discharged to the spill Yes No NA

containment tank, is it stored or treated in a manner that protects it from ignition or reaction? NR 615.05(4)(a)3.h.

i. If ignitable or reactive waste is discharged to the spill containment tank, does the tank comply with the buffer zone requirements of ILHR 10? NR 615.05(4)(a)3.i. Note: The inspector should make the generator aware that these requirements may apply to this tank. Yes No NA

j. Is hazardous waste continually fed into the tank? NR 615.05(4)(a)3.j. Note: If hazardous waste is continually fed into the tank, the tank does not meet the definition of a spill containment tank. Yes No

Comments: SPILL CONTAINMENT TANK WAS EMPTY AT TIME OF THE INSPECTION THOUGH A SMALL AMOUNT OF SOLID FOAM WAS DETECTED

SPLTANK.FAJ 10/93

SEE INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN

Chapter 291, Wis. Stats.
Form 4400-66P Rev. 1-99

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Waste Management
Box 8094
Madison, WI 53708

FOR DNR USE ONLY

F esigned for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570314
Manifest Document No.: 117059
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Manitowoc Ice, 2110 South 26th Street, Manitowoc WI 54220
Site Location If Different: Manitowoc Ice, 2110 South 26th Street, Manitowoc WI 54220
4. Generator's Phone (920) 683-7803

A. State Manifest Document Number: WIK 117059
B. State Generator's ID:

5. Transporter 1 Company Name: Superior Special Services, Inc.
6. US EPA ID Number: WID988566543
C. State Transporter's ID:
D. Transporter's Phone (800) 688-4005

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: Superior Special Services, Inc., 1275 Mineral Springs Drive, Port Washington WI 53074
10. US EPA ID Number: WID988566543
G. State Facility's ID: 03237
H. Facility's Phone: (262) 284-6855

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Solid, n.o.s. 9, NA3077, PGIII (F006)	001	M	00020	Y	F006
b.					
c.					
d.					

Additional Descriptions for Materials Listed Above: : WS#14085(HH303);ERG#171;RQ=10

K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
Project# 13036 DOC# 9111 7024 05 4 11/17/99 SO
Emergency Contact# 1 800 688 4005
Box 20-16

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: BOB WALTERS MFG PROD SUPERV
Signature: [signature]
Date: Month 11 Day 23 Year 1999

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title: Thomas Theis Driver
Signature: [signature]
Date: Month 11 Day 23 Year 1999

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name & Position Title: William Will Operations Manager
Signature: [signature]
Date: Month 11 Day 23 Year 1999

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance and Spill Reporting
Telephone Number: (800) 943-0003

COPY 5-
FACILITY SEND TO GENERATOR

SEE INSTRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN

Chapter 291, Wis. Stats.
Form 4400-66P Rev. 1-99

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Waste Management
Box 8094
Madison, WI 53708

FOR DNR USE ONLY

.esigned for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-003

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014
Manifest Document No.: 117059
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Manitowoc Ice, 2110 South 26th Street, Manitowoc WI 54220
Site Location If Different: Manitowoc Ice, 2110 South 26th Street, Manitowoc WI 54220
4. Generator's Phone: (920) 683-7803

A. State Manifest Document Number: WIK 117059
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone: (800) 688-4005
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: 03237
H. Facility's Phone: (262) 284-6855

5. Transporter 1 Company Name: Superior Special Services, Inc.
6. US EPA ID Number: WID988566543
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: Superior Special Services, Inc., 1275 Mineral Springs Drive, Port Washington WI 53074
10. US EPA ID Number: WID988566543

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Solid, n.o.s. 9, NA3077, PGIII (F006)	001	M	00020	Y	F006
b.					
c.					
d.					

GENERATOR

Additional Descriptions for Materials Listed Above
A: WS#14085(HH303);ERG#171;RQ=10

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Project# 13036 DOC# 9111702405 11/17/99 S-O
Emergency Contact# 1-800-688-4005
4
Box 20-16

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title: BOB WALTERS MFG PROD SUPERV
Signature: [signature]
Date: Month 11 Day 23 Year 1999

TRANSPORTER

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title: Thomas Theis Driver
Signature: [signature]
Date: Month 11 Day 23 Year 1999

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials
Printed/Typed Name & Position Title:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name & Position Title:
Signature:
Date: Month Day Year

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance and Spill Reporting
Telephone Number: (800) 943-0003

COPY 2-
GENERATOR RETAIN

LAND DISPOSAL RESTRICTION NOTIFICATION FORM
(AS REQUIRED BY 40 CFR 268.7)

Generator Name: Manitowoc Ice

EPA ID#: WID980570014 MANIFEST #: WIK 117059

SECTION 1

This shipment contains wastes bearing USEPA waste codes as noted below which are subject to the land disposal restrictions contained in 40 CFR 268. Specific treatment standards for the waste codes noted are contained in 40 CFR 268.40.

Waste Stream Number	EPA Waste Code*	Subcategory** if applicable	Wastewater (WW)or Nonwastewater (NWW)
14085	F006		NWW

*For F001 - F005 waste codes complete Section 2.
**Unless otherwise noted all D001 excluding high TOC subcategory, D002, or D012 - D043 waste codes are designated as being in the subcategory: managed in non-CWA/non-CWA equivalent/non-Class 1 SDWA systems, and must be accompanied by an Underlying Hazardous Constituent (UHC) Notification Form (one UHC Form per waste stream).

SECTION 2 F001 - F005 Spent Solvents

Regulated Constituent	Regulated Constituent	Regulated Constituent
Acetone	Ethyl acetate	Pyridine
Benzene	Ethyl benzene	Tetrachloroethylene
n-Butyl alcohol	Ethyl ether	Toluene
Carbon disulfide	Isobutyl alcohol	1,1,1-Trichloroethane
Carbon tetrachloride	Methanol	1,1,2-Trichloroethane
Chlorobenzene	Methylene chloride	Trichloroethylene
Cresol (m- and p- isomers)	Methyl ethyl ketone	1,1,2-Trichloro-1,2,2-trifluoroethane
o- Cresol	Methyl isobutyl ketone	Trichloromonofluoro-methane
Cyclohexanone	Nitrobenzene	Xylenes (total)
o-Dichlorobenzene		

I hereby certify that all information contained in this and all attached documents contains true and accurate descriptions of this waste.

Signature: Robert A. Walters

Date: 11/23/99

Printed Name: ROBERT A. WALTERS

Title: MFG PROD SUPERVISOR

11/14/95

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014 — Manifest Document No.: 05782

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address — Location If Different

MANITOWOC ICE, INC. 2110 S. 26TH STREET
MANITOWOC, WI 54221

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 414 683-7868 (800)255-3924

A. Illinois Manifest Document Number: IL 8505782 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 5 5 0 7 1 6 9 0 8

C. Transporter's ID Number: U P W 3 1 4 4 6 0 0 H

D. Transporter's Phone: (317)381-6848

E. Transporter's ID Number:

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 1 6 2 0 0 0 7

H. Facility's Phone: (630)739-1151

5. Transporter 1 Company Name: HERITAGE TRANSPORT LLC — 6. US EPA ID Number: IND058484114

7. Transporter 2 Company Name: — 8. US EPA ID Number:

9. Designated Facility Name and Site Address: HERITAGE ENVIRONMENTAL SERVICES LLC, 15330 CANAL BANK ROAD, LEMONT, IL 60439 — 10. US EPA ID Number: ILD085349264

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, WASTE CORROSIVE SOLIDS, OXIDIZING, N.O.S., 8, UN3084, PG II, (FILTERS CONT. W/SULFURIC ACID/ HYDROGEN PEROXIDE) (F006,D002,D010) ERG# 140	0 0 1	C F	00463	P	EPA HW Number F 0 0 6 / 0 9 0 0 1 1
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: A. 21480-2 D002 D010

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY PHONE #: (800)255-3924

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
DARRELL W SCHRAMM	Darrell W Schramm	09 21 99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Terry Spangler	[signature]	09 21 99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
Mike Spencer	[signature]	09 30 99

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL
P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761
State Form LPC 62 8/81 IL532-0610
PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89)

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WID980700014 — Manifest Document No. 105782
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address — Location If Different
MANITOWOC ICE, INC. 2110 S. 26TH STREET
MANITOWOC, WI 54221

A. Illinois Manifest Document Number: IL 8505782
B. Generator's IL Site Number ID Number: 1515102
C. Transporter's IL ID Number: [illegible]
D. Transporter's Phone: (317) [illegible]
E. Transporter's IL ID Number: [illegible]
F. Transporter's Phone: [illegible]
G. Facility's IL ID Number: 0311162000
H. Facility's Phone: (630) 739-1151

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 414 - 665-7668 (800) 255-3974

5. Transporter 1 Company Name: HIRO TRUCK TRANSPORT LLC — 6. US EPA ID Number: IND058444114
7. Transporter 2 Company Name — 8. US EPA ID Number:
9. Designated Facility Name and Site Address: HERITAGE ENVIRONMENTAL SERVICES LLC, 15330 CANAL BANK ROAD, LEMONT, IL 60439 — 10. US EPA ID Number: IL D063492484

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. RQ, WASTE CORROSIVE SOLIDS, OXIDIZING, N.O.S., 9, UN3084, PG II, (FILTERS CONT. W/SULFURIC ACID/ HYDROGEN PEROXIDE) (F006,D002,D010) ERG# 140			00413	P	EPA HW Number D002 D010
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: A. 21480-2 D002 D010
K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY PHONE #: (800)255-3974

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month Day Year 0 8 1 5 9

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Terry Spears — Signature: [illegible] — Date: Month Day Year 0 8 2 9 9

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 6. GENERATOR'S COPY

HESLDR1

LAND DISPOSAL RESTRICTIONS (LDR) NOTICE AND CERTIFICATION

Generator Name: Manitowoc Ice, Inc. EPA I.D. No.: WID 980 520 014

Manifest Doc. No.: 05782 State Manifest No.: 11850 5782

(1) Manifest Page/Line Item	(2) Hazardous Waste Code[A] (One per line)	(3) Waste Water[B]	(4) Non-Waste Water[B]	(5) Subcategory (if applicable)[C]	(6) Underlying Constituents?[D] (Circle one)	(7) Applicable Certification[E] (One per line)
1/112	F006		✓	NA	Yes / No / NA	1
1/112	D002		✓	4	Yes / (No) / NA	1
1/112	D010		✓	48	(Yes) / No / NA	1
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	

A To list additional waste codes complete a Heritage LDR Continuation Form (HESLDR2). Complete a Heritage Supplemental F001-F005 Spent Solvent/Underlying Constituents/F039 Leachate Form (HESLDR3) if one or more applicable waste codes are F001, F002, F003, F004, F005, or F039.

B Must check one, either wastewater or non-wastewater.

C Enter "NA" if no subcategory is applicable to the waste code (see back of HESLDR1 or 40 CFR 268.40).

D If "Yes" is circled, complete Heritage Supplemental F001-F005 Spent Solvent/Underlying Constituents/F039 Leachate Form (HESLDR3). For F001-F005 or F039 wastes, circle "NA" and identify F001-F005 or F039 constituents on HESLDR3.

E Choose from list of certifications below and enter number. Enter only one number per line. Enter date waste is subject to prohibition if Certification #3 applies.

(1) Waste Does Not Meet Applicable Treatment Standards - This is a restricted waste that does not meet the applicable treatment standards set forth in Subpart D of 40 CFR Part 268.

(2) Waste Meets Applicable Treatment Standards - I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(3) Waste Subject to Exemption - This waste is subject to an exemption from a prohibition, such as a case-by-case extension, an exemption, or a nationwide capacity variance. (Include date subject to LDR in Column 7)

(4) Waste Treated to Applicable Treatment Standards (choose one):

(4a) I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(4b) I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) Characteristic Waste Treated to Remove Characteristic (choose one):

(5a) I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5b) I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in 268.2(i), have been treated on-site to meet the 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(6) Lab Pack Managed According to Alternative Treatment Standard at 40 CFR 268.42(c) (INCIN) - I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to Part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

I certify that the information provided on this and any additional pages (HESLDR2; HESLDR3) of this LDR notification is true, accurate and complete.

Authorized Signature: [signature] Print or Type Name: DARRELL SCHAEFER

Company/Title: MANITOWOC ICE INC GEN SUP MAT HANDLING

9-21-99

Heritage does not warrant the acceptability of this form for any specific purpose, waste or treatment method and does not warrant that its use will constitute compliance with applicable law and expressly disclaims responsibility or liability, for any penalties, damages or other costs which may arise out of or be related to use of this document.

HESLDR3

HERITAGE ENVIRONMENTAL SERVICES, LLC
SUPPLEMENTAL F001-F005 SPENT SOLVENT/D001-D043 UNDERLYING CONSTITUENTS/F039 LEACHATE LAND DISPOSAL RESTRICTIONS NOTIFICATION

	Regulated Constituent (Check all that apply)	Manifest Page/ Line Item		Regulated Constituent (Check all that apply)	Manifest Page/ Line Item
	Parathion			Toxaphene	
	Total PCBs (sum of all PCB isomers, or all Aroclors)			Triallate*	
	Pebulate*			Tribromomethane (Bromoform)	
	Pentachlorobenzene			2, 4, 6-Tribromophenol	
	PeCDDs (All Pentachlorodibenzo-p-dioxins)			1,2,4-Trichlorobenzene	
	PeCDFs (All Pentachlorodibenzofurans)			1,1,1-TRICHLOROETHANE	
	Pentachloroethane*			1,1,2-TRICHLOROETHANE	
	Pentachloronitrobenzene			TRICHLOROETHYLENE	
	Pentachlorophenol			TRICHLOROMONOFLUOROMETHANE	
	Phenacetin			2,4,5-Trichlorophenol	
	Phenanthrene			2,4,6-Trichlorophenol	
	Phenol			1,2,3-Trichloropropane	
	Phorate			1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	
	Phthalic acid*			Triethylamine*	
	Phthalic anhydride			tris-(2,3-Dibromopropyl) phosphate	
	Physostigmine*			Vernolate*	
	Physostigmine salicylate*			Vinyl chloride	
	Promecarb*			XYLENES-MIXED ISOMERS	
	Pronamide			Antimony	
	Propham*			Arsenic	
	Propoxur*			Barium	
	Prosulfocarb*			Beryllium	
	Pyrene			Cadmium	
	PYRIDINE			Chromium (Total)	
	Safrole			Cyanides (Total)[1]	
	Silvex (2,4,5-TP)			Cyanides (Amenable)[1]	
	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			Fluoride[2]	
	1,2,4,5-Tetrachlorobenzene			Lead	
	TCDDs (All Tetrachlorodibenzo-p-dioxins)			Mercury - Nonwastewater from Retort	
	TCDFs (All Tetrachlorodibenzofurans)			Mercury - All Others	
	1,1,1,2-Tetrachloroethane			Nickel	
	1,1,2,2-Tetrachloroethane		✓	Selenium[2]	1/112
	TETRACHLOROETHYLENE			Silver	
	2,3,4,6-Tetrachlorophenol			Sulfide[2]	
	Thiodicarb*			Thallium	
	Thiophanate-methyl*			Vanadium[2]	
	TOLUENE				

* Not an F039 constituent

(1) Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using SW-486 Method 9010 or 9012 with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

(2) Fluoride, selenium, sulfide, and vanadium are F039 constituents only and are not underlying hazardous constituents for characteristic wastes.

BILL OF LADING FOR SHIPMENT 25273
Trip Code: 21S593
Customer: 21248 MIDWEST CHEMICAL CO., INC.
Contact: Bill: MARGALI (414)775-1450
PO number(s): 166248
Tot Containers: 40-11

HERITAGE

Pg: 1

HERITAGE ENVIRONMENTAL SERVICES, LLC
7901 WEST MORRIS STREET INDIANAPOLIS IN 46231
(317)243-0811 http://www.heritage-enviro.com

Signature _____ Name (please print) _____ Date _____

This is to certify that the materials listed below are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

GENERATOR: MIDWEST M. MALTERS
MANITOWOC, WI, INC.
2110 S. 26TH STREET
MANITOWOC WI 54221

STATE ID:
EPA ID: WID990570014
Phone: (414)683-7000
GENERATOR: 21480 WM

INIT
LOAD _____
PUMPAGE _____
DEMURRAGE _____
ENGR WORK _____

TRANSPORTER: 8000
HERITAGE TRANSPORT LLC

EPA ID: IND990484114
Phone: (317)881-6999

DRIVER# 311
TRACTOR# 8-2774
TRAILER# 241 (?)

Signature _____ Name (please print) _____ Date 9-21-98

As transporter, I accept this material for transportation in accordance with all applicable regulations.

TSDF: 9999
HERITAGE ENVIRONMENTAL SERVICES LLC
15500 CANAL BANK ROAD
CERMAK IL 60459

EPA ID: ILD065349261
Phone: (630)739-1151
Contact:

INIT
DEMURRAGE _____

Signature _____ Name (please print) _____ Date _____

As receiving facility, I accept this material for treatment, storage or disposal in accordance with all applicable regulations.

Wsm	Prod	HCS	Doc	Common Name	RCRA	GenDoc	State Manifest	Pg	Ln	Ordered Qty	Shipped Quantity	Received Qty
2	A6	9999		WASTE LIQ PRESS FILTERS			0582 3 1 5 0 5 7 6 4	1/1	A			
001	1			NA, WASTE CORROSIVE SOLIDS, OXIDIZING, N.O.S., 8, UN3084, PG II, (FILTER CAKE, W/						II	G:	
NA	1			SULFURIC ACID/FERROUS FERRIDE) (D002,D007,D010) EPA# IND								463
				D002,D007,D010								
d				IL Auth# 1990011 Tank: Quote: 10946 Scale:							Gallons:	LBS:

Wsm	Prod	HCS	Doc	Common Name	RCRA	GenDoc	State Manifest	Pg	Ln	Shipped Quantity	Received Qty
001	1										
NA	1										
				IL Auth# Tank: Quote: Scale:						Gallons:	LBS:

Wsm	Prod	HCS	Doc	Common Name	RCRA	GenDoc	State Manifest	Pg	Ln	Shipped Quantity	Received Qty
001	1										
NA	1										
				IL Auth# Tank: Quote: Scale:						Gallons:	LBS:

Wsm	Prod	HCS	Doc	Common Name	RCRA	GenDoc	State Manifest	Pg	Ln	Shipped Quantity	Received Qty
001	1										
NA											
				IL Auth# Tank: Quote: Scale:						Gallons:	LBS:

EMERGENCY CHEMICAL ASSISTANCE TELEPHONE NUMBER: 1-800-827-5221

LAST PAGE

GENERATOR

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-98

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: WID980570014
Manifest Document No.: [illegible]
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law, but Items D, F, H, I and K are required by State Law.

3. Generator's Name and Mailing Address
MANITOWOC ICE, INC.
2110 S. 26TH ST.
MANITOWOC, WI 54220
4. Generator's Telephone Number: (920) 682-0161

A. State Manifest Document Number: INA 1302213
B. State Generator's ID

5. Transporter 1 Company Name: HYDRITE CHEMICAL-OSH
6. U.S. EPA ID Number: WID000712935
C. State Transporter's ID
D. Transporter's Phone: 920-233-8181

7. Transporter 2 Company Name: TRANSWOOD
8. U.S. EPA ID Number: NED000080580
E. State Transporter's ID: 3629
F. Transporter's Phone: 800-220-1555

9. Designated Facility Name and Site Address
POLLUTION CONTROL INDUSTRIES
4343 KENNEDY AVENUE
EAST CHICAGO, IN 46312
10. U.S. EPA ID Number: IND000646943
G. State Facility's ID
H. Facility's Phone: 219-397-3951

11. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE PAINT, 3, UN1203, PGII, (D001)	1	DM	220 55	P G	D001
b. RQ, WASTE FLAMMABLE LIQUID, N.O.S. (TOLUENE, ACETONE), 3, UN1993, PGII, (F005)	1	DM	404 55	P G	F005
c. ISOCYANATES, TOXIC, N.O.S. (POLYISOCYANATE), 6.1, UN2206, PGII, (NRM)	1	CF DM	570	P G	NRM
d.					

J. Additional Descriptions for Materials Listed Above
a) b) D001 D018 D035 F003 c)

K. Handling Codes for Wastes Listed Above
S01

15. Special Handling Instructions and Additional Information
a) H1233790 A109134 b) H113280 A109135 c) H1233780 A109133

Emergency Phone Number: (800) 255-3924

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert A Walters | Signature: [signature] | Date: Month 02 Day 23 Year 99

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed/Typed Name: DALE J. GUDEN | Signature: [signature] | Date: Month 02 Day 23 Year 99

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed/Typed Name: Robert Hubanks | Signature: Robert Hubanks | Date: Month 02 Day 24 Year 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest (except as noted in Item 19).
Printed/Typed Name: Todd Weaver | Signature: [signature] | Date: Month 02 Day 24 Year 99

GENERATOR — TRANSPORTER — FACILITY

In case of a spill, call the Indiana Office of Environmental Response at 317/233-7745 (day or night) and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

INA1302213

EPA Form 8700-22 Previous editions are obsolete
State Form 45273 (R / 6-97)

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite *(12-pitch)* typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-98

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: WID980570014
Manifest Document No.: 0-2-2-1-3
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law, but items D, F, H, I and K are required by State Law.

3. Generator's Name and Mailing Address
MANITOWOC ICE, INC.
2110 S. 26TH ST.
MANITOWOC, WI 54220
4. Generator's Telephone Number: 920 682-0161

A. State Manifest Document Number: INA1302213
B. State Generator's ID:

5. Transporter 1 Company Name: HYDRITE CHEMICAL-OSH
6. U.S. EPA ID Number: WID000712935
C. State Transporter's ID:
D. Transporter's Phone: 920-233-8181

7. Transporter 2 Company Name: TRANSWOOD
8. U.S. EPA ID Number: NE0000080580
E. State Transporter's ID: 3629
F. Transporter's Phone: 800-220-1555

9. Designated Facility Name and Site Address
POLLUTION CONTROL INDUSTRIES
4343 KENNEDY AVENUE
EAST CHICAGO, IN 46312
10. U.S. EPA ID Number: IND000646943
G. State Facility's ID:
H. Facility's Phone: 219-397-3951

11. U.S. DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE PAINT,3,UN1203,PGII ,(D001)	1	DM	220 55	P G	D001
b. RQ, WASTE FLAMMABLE LIQUID, N.O.S.(TOLUENE, ACETONE),3,UN1993,PGII ,(F005)	1	DM	404 55	P G	F005
c. ISOCYANATES, TOXIC, N.O.S.(POLYISOCYANATE),6.1,UN2206,PGII ,(NRM)	1	~~DM~~ CF	570	P ~~G~~	NRM
d.					

J. Additional Descriptions for Materials Listed Above
a) b) D001 D018 D035 F003 c)

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
a) H1233790 A109134 b) H113280 A109135 c) H1233780 A109133

Emergency Phone Number: (800) 255-3924

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: ROBERT A WALTERS
Signature: Robert A. Walters
Date: Month 02 Day 23 Year 99

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed/Typed Name: DALE J. GUDDEN
Signature: Dale J. Gudden
Date: Month 02 Day 23 Year 99

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest *(except as noted in Item 19)*.
Printed/Typed Name:
Signature:
Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

In case of spill, call the Indiana Office of Environmental Response at 317/233-7745 *(day or night)* and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

INA1302213

EPA Form 8700-22 Previous editions are obsolete
State Form 45273 (R 6-97)

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

HYDRITE CHEMICAL C

GENERATOR	HYDRITE AUTHORIZATION #	STATE MANIFEST #
MANITOWOC ICE INC	11328-0-109135	INA1302213

EPA WASTE CODE NUMBERS							
[illegible]05	D001	D018	D035	F003			

Is this waste ☒ Non-wastewater or ☐ Wastewater? (see 40 CFR 268.2) Check ONE

Indicate all the Universal Treatment Standards and/ or EPA Waste Codes as they apply to your waste by checking the appropriate boxes in sections A, B, C, D. For those treatment standards not listed in sections A, B, C, or D, list their waste Code, Regulated Constituent, and treatment level in Section E.

SECTION A — IGNITABLE WASTE TREATMENT STANDARDS

WASTE CODE	Waste Description and Treatment/Regulatory Subcategory	WASTEWATER Concentration in mg/l or Technology Code	NON-WASTEWATER Concentration in mg/l unless noted as *mg/l TCLP or Technology Code
☐ D001	Ignitable Characteristic Wastes, except for the §261.21(a)(1) High TOC Subcategory, that are managed in non-CWA / non-CWA-equivalent / non-Class I SDWA systems.	DEACT and meet §268.48 Standards; or RORGS; or CMBST	DEACT and meet §268.48 standards or RORGS; or CMBST
☒ D001	High TOC Ignitable Characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1) - Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of non-wastewater only.)	N/A	RORGS; or CMBST

SECTION B — CORROSIVE WASTE TREATMENT STANDARDS

☐ D002	Corrosive Characteristic Wastes that are managed in non-CWA / non-CWA equivalent / non-Class I SDWA systems.	DEACT and meet §268.48 standards	DEACT and meet §268.48 standards
☐ D002	Corrosive Characteristic Wastes that are managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT

SECTION C — METAL WASTE TREATMENT STANDARDS

REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/l-TCLP	REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/l-TCLP	REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/l-TCLP
☐ Antimony	1.9	2.1	☐ Chromium (total) (D007)	2.77	0.86	☐ Selenium (D010)	0.82	0.16
☐ Arsenic (D004)	1.4	5.0	☐ Lead (D008)	0.69	0.37	☐ Silver (D011)	0.43	0.30
☐ Barium (D005)	1.2	7.6	☐ Mercury (non-wastewater from Retort)	N/A	0.20	☐ Thallium	1.4	0.078
☐ Beryllium	0.82	0.014	☐ Mercury - all others	0.15	0.025	☐ Vanadium	4.3	0.23
☐ Cadmium (D006)	0.69	0.19	☐ Nickel	3.98	5.0	☐ Zinc	2.61	5.3

SECTION D — WASTE TREATMENT STANDARDS

REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/kg (*mg/l-TCLP)	REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/kg (*mg/l-TCLP)	REGULATED CONSTITUENT	WASTEWATER mg/l	NON-WASTEWATER mg/kg (*mg/l-TCLP)
[illegible]ne	0.28	160	☐ 1,2 Dichloroethane	0.21	6.0	☐ Pyridine	0.014	16
☒ Benzene	0.14	10	☐ Ethyl acetate	0.34	33	☐ Tetrachloroethylene	0.056	6.0
☐ n-Butyl alcohol	5.6	2.6	☐ Ethyl Benzene	0.057	10	☒ Toluene	0.080	10
☐ Carbon disulfide	3.8	N/A	☐ Ethyl ether	0.12	160	☐ 1,1,1-Trichloroethane	0.054	6.0
☐ Carbon tetrachloride	0.057	6.0	☐ Isobutyl alcohol	5.6	170	☐ 1,1,2-Trichloroethane	0.054	6.0
☐ Chlorobenzene	0.057	6.0	☒ Methanol	5.6	0.75*	☐ 1,1,2-Trichloro-1,2,2 trifluoroethane	0.057	3.0
☐ Chloroform	0.046	6.0	☐ Methylene chloride	0.089	30	☐ Trichloroethylene	0.054	6.0
☐ O-Cresols	0.11	5.6	☒ Methyl ethyl ketone	0.28	36	☐ Trichloromonofluoromethane	0.020	30
☐ M & P Cresols	0.77	5.6	☐ Methyl isobutyl ketone	0.14	33	☐ Vinyl chloride	0.27	6.0
☐ Cyclohexanone	0.36	0.75*	☐ Nitrobenzene	0.068	14	☐ Xylene	0.32	30

SECTION E — WASTE TREATMENT STANDARDS NOT LISTED ABOVE

WASTE CODE	REGULATED CONSTITUENT	WASTEWATER	NON-WASTEWATER

SECTION F — CALIFORNIA LIST WASTES

- ☐ Liquid hazardous wastes having a pH less than or equal to two (2)
- ☐ Liquid hazardous wastes containing PCBs at a concentration greater than or equal to 50 ppm
- ☐ Liquid hazardous wastes that contain HOCs in total concentration greater than or equal to 1000 mg/l
- ☐ Nonliquid hazardous wastes containing HOCs in total concentration greater than or equal to 1000 mg/kg
- ☐ Free (amenable to chlorination) cyanides greater than or equal to 1000 mg/l
- ☐ One or more of the following metals greater than or equal to the following: Arsenic and/or compounds: 500 mg/l; Cadmium and/or compounds: 100 mg/l; Chromium and/or compounds: [illegible] mg/l; Lead and/or compounds: 500 mg/l; Mercury and/or compounds: 20 mg/l; Nickel and/or compounds: 134 mg/l; Selenium and/or compounds: 100 mg/l; Thallium and/or [illegible]ounds: 130 mg/l.

SECTION G — UNDERLYING HAZARDOUS CONSTITUENTS

If there are underlying hazardous constituents of concern which do not meet the treatment standard of 40 CFR 268.48, Table UST-Universal Treatment Standard, then mark all underlying constituents on page #2.

D001, D002, or D012-D043 to be treated in a non-CWA system, and that contain underlying hazardous constituents - Check all underlying hazardous constituents present.

An underlying hazardous constituent is defined at 40 CFR 268.2(i) as any constituent listed in the universal treatment standards table (40 CFR 268.48), present at a concentration above its constituent-specific treatment standard. These constituents and their treatment standards are listed on next page. D001 wastes (only) treated by incineration, fuels substitution, or organics recovery system do not require identification of underlying hazardous constituents.

§268.48 Table UTS — Universal Treatment Standards

Regulated constituent - common name	Wastewater standard. Concentration in mg/l	Nonwastewater std. Con. in mg/kg[1] unless noted as "mg/l TCLP"
☐ Acenaphthylene	0.059	3.4
☐ Acenaphthene	0.059	3.4
☐ Acetone	0.28	160
☐ [illegible]onitrile	5.6	1.8
[illegible]henone	0.010	9.7
☐ 2-Acetylaminofluorene	0.059	140
☐ Acrolein	0.29	NA
☐ Acrylamide	19	23
☐ Acrylonitrile	0.24	84
☐ Aldrin	0.021	0.066
☐ 4-Aminobiphenyl	0.13	NA
☐ Aniline	0.81	14
☐ Anthracene	0.059	3.4
☐ Aramite	0.36	NA
☐ alpha-BHC	0.00014	0.066
☐ beta-BHC	0.00014	0.066
☐ delta-BHC	0.023	0.066
☐ gamma-BHC	0.0017	0.066
☐ Benzene	0.14	10
☐ Benz(a)anthracene	0.059	3.4
☐ Benzal chloride	0.055	6.0
☐ Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene).	0.11	6.8
☐ Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene).	0.11	6.8
☐ Benzo(g,h,i)perylene	0.0055	1.8
☐ Benzo(a)pyrene	0.061	3.4
☐ Bromodichloromethane	0.35	15
☐ Methyl bromide (Bromomethane)	0.11	15
☐ 4-Bromophenyl phenyl ether	0.055	15
☐ n-Butyl alcohol	5.6	2.6
☐ Butyl benzyl phthalate	0.017	28
☐ 2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	0.066	2.5
☐ Carbon disulfide	3.8	4.8 mg/l TCLP
☐ Carbon tetrachloride	0.057	6.0
☐ Chlordane (alpha and gamma isomers)	0.0033	0.26
☐ p-Chloroaniline	0.46	16
[illegible]robenzene	0.057	6.0
[illegible]obenzilate	0.10	NA
☐ 2-Chloro-1,3-butadiene	0.057	0.28
☐ Chlorodibromomethane	0.057	15
☐ Chloroethane	0.27	6.0
☐ bis(2-Chloroethoxy)methane	0.036	7.2
☐ bis(2-Chloroethyl-ether)	0.033	6.0
☐ Chloroform	0.046	6.0
☐ bis(2-Chloroisopropyl)ether	0.055	7.2
☐ p-Chloro-m-cresol	0.018	14
☐ 2-Chloroethyl vinyl ether	0.062	NA
☐ Chloromethane (Methyl chloride)	0.19	30
☐ 2-Chloronaphthalene	0.055	5.6
☐ 2-Chlorophenol	0.044	5.7
☐ 3-Chloropropylene	0.036	30
☐ Chrysene	0.059	3.4
☐ o-Cresol	0.11	5.6
☐ m-Cresol (difficult to distinguish from p-cresol)	0.77	5.6
☐ p-Cresol (difficult to distinguish from m-cresol)	0.77	5.6
☐ Cyclohexanone	0.36	0.75 mg/l TCLP
☐ 1,2-Dibromo-3-chloropropane	0.11	15
☐ Ethylene dibromide (1,2-Dibromoethane)	0.028	15
☐ Dibromomethane	0.11	15
☐ 2,4-D (2,4-Dichlorophenoxyacetic acid)	0.72	10
☐ o,p'-DDD	0.023	0.087
☐ p,p'-DDD	0.023	0.087
☐ o,p'-DDE	0.031	0.087
☐ p,p'-DDE	0.031	0.087
☐ o,p'-DDT	0.0039	0.087
☐ p,p'-DDT	0.0039	0.087
☐ Dibenz(a,h)anthracene	0.055	8.2
☐ Dibenz(a,e)pyrene	0.061	NA
☐ m-Dichlorobenzene	0.036	6.0
☐ o-Dichlorobenzene	0.088	6.0
[illegible]ichlorobenzene	0.090	6.0
[illegible]orodifluoromethane	0.23	7.2
☐ 1,1-Dichloroethane	0.059	6.0

Regulated constituent - common name	Wastewater standard. Concentration in mg/l	Nonwastewater std. Con. in mg/kg[1] unless noted as "mg/l TCLP"
☐ 1,2-Dichloroethane	0.21	6.0
☐ 1,1-Dichloroethylene	0.025	6.0
☐ trans-1,2-Dichloroethylene	0.054	30
☐ 2,4-Dichlorophenol	0.044	14
☐ 2,6-Dichlorophenol	0.044	14
☐ 1,2-Dichloropropane	0.85	18
☐ cis-1,3-Dichloropropylene	0.036	18
☐ trans-1,3-Dichloropropylene	0.036	18
☐ Dieldrin	0.017	0.13
☐ Diethyl phthalate	0.20	28
☐ 2-4-Dimethyl phenol	0.036	14
☐ Dimethyl phthalate	0.047	28
☐ Di-n-butyl phthalate	0.057	28
☐ 1,4-Dinitrobenzene	0.32	2.3
☐ 4,6-Dinitro-o-cresol	0.28	160
☐ 2,4-Dinitrophenol	0.12	160
☐ 2,4-Dinitrotoluene	0.32	140
☐ 2,6-Dinitrotoluene	0.55	28
☐ Di-n-octyl phthalate	0.017	28
☐ p-Dimethylaminoazobenzene	0.13	NA
☐ Di-n-propylnitrosamine	0.40	14
☐ 1,4-Dioxane	NA	170
☐ Diphenylamine (difficult to distinguish from diphenylnitrosamine).	0.92	13
☐ Diphenylnitrosamine (difficult to distinguish from diphenylamine).	0.92	13
☐ 1,2-Diphenylhydrazine	0.087	NA
☐ Disulfoton	0.017	6.2
☐ Endosulfan I	0.023	0.066
☐ Endosulfan II	0.029	0.13
☐ Endosulfan sulfate	0.029	0.13
☐ Endrin	0.0028	0.13
☐ Endrin aldehyde	0.025	0.13
☐ Ethyl acetate	0.34	33
☐ Ethyl cyanide (Propanenitrile)	0.24	360
☐ Ethyl benzene	0.057	10
☐ Ethyl ether	0.12	160
☐ bis(2-Ethylhexyl) phthalate	0.28	28
☐ Ethyl methacrylate	0.14	160
☐ Ethylene oxide	0.12	NA
☐ Famphur	0.017	15
☐ Fluoranthene	0.068	3.4
☐ Fluorene	0.059	3.4
☐ Heptachlor	0.0012	0.066
☐ Heptachlor epoxide	0.016	0.066
☐ Hexachlorobenzene	0.055	10
☐ Hexachlorobutadiene	0.055	5.6
☐ Hexachlorocyclopentadiene	0.057	2.4
☐ HxCDDs (All Hexachlorodibenzo-p-dioxins)	0.000063	0.001
☐ HxCDFs (All Hexachlorodibenzofurans)	0.000063	0.001
☐ Hexachloroethane	0.055	30
☐ Hexachloropropylene	0.035	30
☐ Indeno (1,2,3-c,d) pyrene	0.0055	3.4
☐ Iodomethane	0.19	65
☐ Isobutyl alcohol	5.6	170
☐ Isodrin	0.021	0.066
☐ Isosafrole	0.081	2.6
☐ Kepone	0.0011	0.13
☐ Methacrylonitrile	0.24	84
☐ Methanol	5.6	0.75 mg/l TCLP
☐ Methapyrilene	0.081	1.5
☐ Methoxychlor	0.25	0.18
☐ 3-Methylcholanthrene	0.0055	15
☐ 4,4-Methylene bis (2-chloroaniline)	0.50	30
☐ Methylene chloride	0.089	30
☐ Methyl ethyl ketone	0.28	36
☐ Methyl isobutyl ketone	0.14	33
☐ Methyl methacrylate	0.14	160
☐ Methyl methansulfonate	0.018	NA
☐ Methyl parathion	0.014	4.6
☐ Naphthalene	0.059	5.6
☐ 2-Naphthylamine	0.52	NA
☐ o-Nitroaniline	0.27	14
☐ p-Nitroaniline	0.028	28

Regulated constituent - common name	Wastewater standard. Concentration in mg/l	Nonwastewater std. Con. in mg/kg[1] unless noted as "mg/l TCLP"
☐ Nitrobenzene	0.068	14
☐ 5-Nitro-o-toluidine	0.32	28
☐ o-Nitrophenol	0.028	13
☐ p-Nitrophenol	0.12	29
☐ N-Nitrosodiethylamine	0.40	28
☐ N-Nitrosodimethylamine	0.40	2.3
☐ N-Nitroso-di-n-butylamine	0.40	17
☐ N-Nitrosomethylethylamine	0.40	2.3
☐ N-Nitrosomorpholine	0.40	2.3
☐ N-Nitrosopiperidine	0.013	35
☐ N-Nitrosopyrrolidine	0.013	35
☐ Parathion	0.014	4.6
☐ Total PCBs (sum of all PCB isomers, or all Aroclors)	0.10	10
☐ Pentachlorobenzene	0.055	10
☐ PeCDDs (All Pentachlorodibenzo-p-dioxins)	0.000063	0.001
☐ PeCDFs (All Pentachlorodibenzofurans)	0.000035	0.001
☐ Pentachloroethane	0.055	6.0
☐ Pentachloronitrobenzene	0.055	4.8
☐ Pentachlorophenol	0.089	7.4
☐ Phenacetin	0.081	16
☐ Phenanthrene	0.059	5.6
☐ Phenol	0.039	6.2
☐ Phorate	0.021	4.6
☐ Phthalic Acid	0.055	28
☐ Phthalic anhydride	0.055	28
☐ Pronamide	0.093	1.5
☐ Pyrene	0.067	8.2
☐ Pyridine	0.014	16
☐ Safrole	0.081	22
☐ Silvex (2,4,5-TP)	0.72	7.9
☐ 2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.72	7.9
☐ 1,2,4,5-Tetrachlorobenzene	0.055	14
☐ TCDDs (All Tetrachlorodibenzo-p-dioxins)	0.000063	0.001
☐ TCDFs (All Tetrachlorodibenzofurans)	0.000063	0.001
☐ 1,1,1,2-Tetrachloroethane	0.057	6.0
☐ 1,1,2,2-Tetrachloroethane	0.057	6.0
☐ Tetrachloroethylene	0.056	6.0
☐ 2,3,4,6-Tetrachlorophenol	0.030	7.4
☐ Toluene	0.080	10
☐ Toxaphene	0.0095	2.6
☐ Bromoform (Tribromomethane)	0.63	15
☐ 1,2,4-Trichlorobenzene	0.055	19
☐ 1,1,1-Trichloroethane	0.054	6.0
☐ 1,1,2-Trichloroethane	0.054	6.0
☐ Trichloroethylene	0.054	6.0
☐ Trichloromonofluoromethane	0.020	30
☐ 2,4,5-Trichlorophenol	0.18	7.4
☐ 2,4,6-Trichlorophenol	0.035	7.4
☐ 1,2,3-Trichloropropane	0.85	30
☐ 1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
☐ tris-(2,3-Dibromopropyl) phosphate	0.11	0.10
☐ Vinyl chloride	0.27	6.0
☐ Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations).	0.32	30
☐ Antimony	1.9	2.1 mg/l TC[illegible]
☐ Arsenic	1.4	5.0 mg/l TC[illegible]
☐ Barium	1.2	7.6 mg/l TC[illegible]
☐ Beryllium	0.82	0.014 mg/l T[illegible]
☐ Cadmium	0.69	0.19 mg/l T[illegible]
☐ Chromium (Total)	2.77	0.86 mg/l T[illegible]
☐ Cyanides (Total)[4]	1.2	590
☐ Cyanides (Amenable)[4]	0.86	30
☐ Fluoride	35	NA
☐ Lead	0.69	0.37 mg/l T[illegible]
☐ Mercury-Nonwastewater from Retort	NA	0.20 mg/l T[illegible]
☐ Mercury-All Others	0.15	0.025 mg/l T[illegible]
☐ Nickel	3.98	5.0 mg/l TC[illegible]
☐ Selenium	0.82	0.16 mg/l T[illegible]
☐ Silver	0.43	0.30 mg/l T[illegible]
☐ Sulfide	14	NA
☐ Thallium	1.4	0.078 mg/l T[illegible]
☐ Vanadium[5]	4.3	0.23 mg/l T[illegible]
☐ Zinc[5]	2.61	5.3 mg/l TC[illegible]

*For foot notes see 40CFR 268.48

Certification Standards

I certify that I have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification. I believe that the information I submitted is true, accurate and complete.

Signature [illegible] Title ENVIRONMENTAL TECH Date 2/23/99

CUSTOMER COPY

MINNESOTA POLLUTION CONTROL AGENCY
HAZARDOUS WASTE DIVISION
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: HWIMS

For MPCA use only

OMB No. 0250-0039
Expires 9/30/99

PLEASE **TYPE** (Form designed for use on elite (12-pitch) typewriter) or print **LEGIBLY**. Instructions on cover page.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014
Manifest Document No.: 812371
2. Page 1 of 1

Information in shaded area not required by Federal law. Minnesota rules require Items H. and I.

3. Generator's Name and Mailing Address (Also location of waste generation if different from mailing address.)
Manitowoc Ice, Inc
2110 South 26th Street
Manitowoc, WI 542211720

A. State Manifest Document Number: MN 8029816

B. State Generator's ID: WID980570014

4. Generator's Phone: 414-683-7868 County: Manitowoc

5. Transporter 1 Company Name: Systems Logistics
Dahlen Transport

6. US EPA ID Number: MND022969026

C. State Transporter's ID: 18179

D. Transporter's Phone: 888-809-2033

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
US Filter Recovery Services
2430 Rose Place
Roseville, MN 55113

10. U.S EPA ID Number: MND981098478

G. State Facility's ID

H. Facility's Phone: 651-638-1300

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM		12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	RQ	Waste Nitric acid, solution, 8, UN2031 PGII	004	TP	1200	G	D002, CANI
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
a. 99176088 RQ=100 LBS

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact. 800-688-4005

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.

If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment, or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert A. Walters
Signature: [signature]
Date: Month 11 Day 17 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Cedric Solie
Signature: [signature]
Date: Month 11 Day 17 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [signature] Martin
Signature: [signature]
Date: Month 11 Day 18 Year 99

GENERATOR

TRANSPORTER

FA

800/422-0798 or 612/649-5451 and the National Response Center at 800/424-8802. Outside Minnesota, call the National Response Center and appropriate state agency.

Minnesota Form PQ-00371-04 (9/90) (Previous editions obsolete)

Copy 3: Facility mails to Generator

MINNESOTA POLLUTION CONTROL AGENCY
HAZARDOUS WASTE DIVISION
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: HWIMS

For MPCA use only

OMB No. 0250-0039
Expires 9/30/99

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter) or print LEGIBLY. Instructions on cover page.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014
Manifest Document No.: 012371
2. Page 1 of 1

Information in shaded area not required by Federal law. Minnesota rules require Items H. and I.

3. Generator's Name and Mailing Address (Also location of waste generation if different from mailing address.)
Manitowoc Ice, Inc
2110 South 26th Street
Manitowoc, WI 54220-1720

4. Generator's Phone: 414-683-7888 County: Manitowoc

5. Transporter 1 Company Name: Oahen Transport
6. US EPA ID Number: MND022969026

7. Transporter 2 Company Name:
8. US EPA ID Number: TX 0000222223

9. Designated Facility Name and Site Address
US Filter Recovery Services
3430 Rose Place
Roseville, MN 55113
10. U.S EPA ID Number: MND981098478

A. State Manifest Document Number: MN 8029816
B. State Generator's ID: WID980570014
C. State Transporter's ID: 16179
D. Transporter's Phone: 888-809-2030
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: 651-638-1300

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	RQ	Waste Nitric acid, solution, 8, UN2031 PGII	1	TP	1000	P	D002, CAN
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
a. 89178089 RQ=100 LBS

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 800-685-4035

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.

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Printed/Typed Name: [illegible] Signature: [illegible] Date: Month 11 Day 17 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Signature: Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

800/422-0798 or 612/649-5451 and the National Response Center and appropriate state agency.

Minnesota Form PQ-00371-04 (9/90) (Previous editions obsolete)

Copy 8: Generator retains

40CFR268 LAND DISPOSAL NOTIFICATION

We hereby **notfy** U.S. FILTER RECOVERY SERVICES that the manifested waste shipment identified below contains one or more constituents restricted for land disposal under Federal Regulations, 40CFR268, and **must be treated** prior to land disposal.

Generator Name: Manitowoc Ice, Inc

USEPA ID No: WID980570014

erator Address: 2110 South 26th Street
P.O. Box 1720
Manitowoc, WI 542211720

Phone No: 414-683-7868

USFRS Hazardous Waste Profile Number: 99176088

State Manifest Document Number: 8D9816

WASTE CODE AND CATEGORY	TREATABILITY GROUP	40CFR268 REFERENCES
D002 Acid Liquids**	WW and NWW	268.42 DEACT

**Managed in CWA, CWA -Equivalent, or Class I SDWA Systems

Liquid wasted or free liquids from solid wastes with metal concentrations at or above those listed below.

Nickel 134 mg/L

WW = Wastewaters NWW = Non-Wastewaters

"As an authorized representative of my company, I am personally familiar with all the information conatined in this notification and any attachments and certify that it is complete and accurate to the best of my knowledge."

Signature

Production Supervisor
Title

11/17/99
Date

Note: Almost all wastes require Land Restriction Notifications. This form is valid for the majority of vastes accepted by USFRS to treatment. If the waste code for your waste es not appear, contact USFRS for assistance.

(REV 3/7/96)

USFilter

RECOVERY SERVICES
2430 ROSE PLACE
ROSEVILLE, MN 55113

TELEPHONE 651-638-1300
FACSIMILE 651-633-5074

INVOICE

MANITOWOC ICE, INC.
ATTN: ROBERT WALTERS
P.O. BOX 1720
MANITOWOC, WI 54221-1720

BILLING DATE: NOVEMBER 19, 1999
ACCOUNT NUMBER: 1007
INVOICE NUMBER: 9110116
DUE DATE: NET 10 DAYS
CONTACT: BOB WALTERS
PURCHASE ORDER: 164688

DATE	TRO NUMBER	DESCRIPTION	QUANTITY	RATE	TOTAL
11/12/99	3361	TRANSPORTATION - N&M TRANSFER (DELIVER 4 EMPTY TOTES TO MANITOWOC)	1	$200.00	$200.00
			TOTAL DUE:		$200.00

11/30/99
OK
[illegible]
$30.35
Acc

USFilter

RECOVERY SERVICES
2430 ROSE PLACE
ROSEVILLE, MN 55113

TELEPHONE 651-638-1300
FACSIMILE 651-633-5074

SERVICE INVOICE

MANITOWOC ICE, INC.
ATTN: ROBERT WALTERS
P.O. BOX 1720
MANITOWOC, WI 54221-1720

BILLING DATE: NOVEMBER 20, 1999
ACCOUNT NUMBER: 1172
INVOICE NUMBER: 9110134
DUE DATE: NET 10 DAYS
CONTACT: ROBERT WALTERS
PURCHASE ORDER: 164688

DATE OF SERVICE	MANIFEST NUMBER	WASTE PROF. #	WASTE TYPE	QUANTITY	RATE	TOTAL
11/18/99	8029816	99176088	NITRIC ACID STRIP SOLUTION	1200	$1.42	$1,704.00
11/18/99	8029816	99176088	TOTE HANDLING FEE	4	$295.00	$1,180.00
11/18/99	8029816	TRO 3356	TRANSPORTATION (DAHLEN TRANSPORT)	1	$350.00	$350.00
				TOTAL DUE:		$3,234.00

O.K.
12/21/99

USFilter

RECOVERY SERVICES
2430 ROSE PLACE
ROSEVILLE, MN 55113

TELEPHONE 651-638-1300
FACSIMILE 651-633-5074

INVOICE

MANITOWOC ICE, INC.
ATTN: ROBERT WALTERS
P.O. BOX 1720
MANITOWOC, WI 54221-1720

BILLING DATE: DECEMBER 9, 1999
ACCOUNT NUMBER: 1007
INVOICE NUMBER: 9120061
DUE DATE: NET 10 DAYS
CONTACT: BOB WALTERS
PURCHASE ORDER: 164688

DATE	TRO NUMBER	DESCRIPTION	QUANTITY	RATE	TOTAL
11/29/99	3465	TRANSPORTATION - N&M TRANSFER (DELIVER 2 EMPTY TOTES TO MANITOWOC)	1	$150.00	$150.00

TOTAL DUE: $150.00

O.K.
12/14/99
Bob O. Walters
Acc. 830-38

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014 — Manifest Document No.: 05568

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address — Location If Different

MANITOWOC ICE, INC. 2110 S. 26TH STREET
MANITOWOC, WI 54221

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 414 603-7868 (800)255-3924

5. Transporter 1 Company Name: HERITAGE TRANSPORT LLC — 6. US EPA ID Number: IN0058484114

7. Transporter 2 Company Name — 8. US EPA ID Number:

9. Designated Facility Name and Site Address — 10. US EPA ID Number:

HERITAGE ENVIRONMENTAL SERVICES LLC
15330 CANAL BANK ROAD
LEMONT, IL 60439 — ILD085349264

A. Illinois Manifest Document Number: IL 8505568 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 9 5 5 0 7 1 6 9 0 8

C. Transporter's ID Number: H P W 3 1 4 4 6 0 0 H

D. Transporter's Phone: (317) 381-6848

E. Transporter's ID Number:

F. Transporter's Phone:

G. Facility's IL ID Number: 0 3 1 1 6 2 0 0 0 7

H. Facility's Phone: (630) 739-1151

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, HAZARDOUS WASTE, SOLID, N.O.S., 9, NA3077, PG III, (COPPER/POTASSIUM CYANIDE CONT. FILTERS) (F007) ERG# 171	001	DM	00158	P	EPA HW Number: F007 090011
b.					EPA HW Number:
c.					EPA HW Number:
d.					EPA HW Number:

J. Additional Description for Materials Listed Above: A. 21480-3

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY PHONE #: (800)255-3924

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: ROBERT A. WALTERS — Signature: Robert A. Walters — Date (Month Day Year): 08 24 99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Terry Spangler — Signature: Terry Spangler — Date (Month Day Year): 08 24 99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: — Signature: — Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: — Signature: — Date (Month Day Year):

GENERATOR — TRANSPORTER — FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 6. GENERATOR'S COPY

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

HERITAGE

HERITAGE ENVIRONMENTAL SERVICES, LLC
2901 WEST MORRIS STREET INDIANAPOLIS IN 46241
(317) 243-9411 http://www.heritage-environ.com

Signature: Robert A. Walters Name (please print): ROBERT A. WALTERS Date: 8/24/99

This is to certify that the materials listed below are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

[illegible]

Signature: Terry Spangler Name (please print): Terry Spangler Date: 8-24-99

[illegible]

158

[illegible]

GENERATOR

HESLDR1

LAND DISPOSAL RESTRICTIONS (LDR) NOTICE AND CERTIFICATION

Generator Name: Manitowoc Ice, Inc. EPA I.D. No.: WID 980 570 014

Manifest Doc. No.: 05568 State Manifest No.: IL 8505568

(1) Manifest Page/Line Item	(2) Hazardous Waste Code[A] (One per line)	(3) Waste Water[B]	(4) Non-Waste Water[B]	(5) Subcategory (if applicable)[C]	(6) Underlying Constituents?[D] (Circle one)	(7) Applicable Certification[E] (One per line)
1/11a	F007		✓	NA	Yes / No / NA	1
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	
					Yes / No / NA	

A To list additional waste codes complete a Heritage LDR Continuation Form (HESLDR2). Complete a Heritage Supplemental F001-F005 Spent Solvent/Underlying Constituents/F039 Leachate Form (HESLDR3) if one or more applicable waste codes are F001, F002, F003, F004, F005, or F039.

B Must check one, either wastewater or non-wastewater.

C Enter "NA" if no subcategory is applicable to the waste code (see back of HESLDR1 or 40 CFR 268.40).

D If "Yes" is circled, complete Heritage Supplemental F001-F005 Spent Solvent/Underlying Constituents/F039 Leachate Form (HESLDR3). For F001-F005 or F039 wastes, circle "NA" and identify F001-F005 or F039 constituents on HESLDR3.

E Choose from list of certifications below and enter number. Enter only one number per line. Enter date waste is subject to prohibition if Certification #3 applies.

(1) Waste Does Not Meet Applicable Treatment Standards - This is a restricted waste that does not meet the applicable treatment standards set forth in Subpart D of 40 CFR Part 268.

(2) Waste Meets Applicable Treatment Standards - I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(3) Waste Subject to Exemption - This waste is subject to an exemption from a prohibition, such as a case-by-case extension, an exemption or a nationwide capacity variance. (Include date subject to LDR in Column 7)

(4) Waste Treated to Applicable Treatment Standards (choose one):

(4a) I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(4b) I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) Characteristic Waste Treated to Remove Characteristic (choose one):

(5a) I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5b) I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in 268.2(i), have been treated on-site to meet the 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(6) Lab Pack Managed According to Alternative Treatment Standard at 40 CFR 268.42(c) (INCIN) - I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to Part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

I certify that the information provided on this and any additional pages (HESLDR2; HESLDR3) of this LDR notification is true, accurate and complete.

Authorized Signature: Robert A. Walters Print or Type Name: ROBERT A. WALTERS

Company/Title: MANITOWOC ICE INC. / PRODUCTION SUPERVISOR

8/24/99

Heritage does not warrant the acceptability of this form for any specific purpose, waste or treatment method and does not warrant that its use will constitute compliance with applicable law and expressly disclaims responsibility or liability, for any penalties, damages or other costs which may arise out of or be related to use of this document.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite *(12-pitch)* typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-98

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: WID980570014 . . . Manifest Document No. 0.2.3.0.9
2. Page 1 of 1

Information in the shaded areas is not required by Federal Law, but Items D, F, H, I and K are required by State Law.

3. Generator's Name and Mailing Address
MANITOWOC ICE, INC.
2110 S. 26TH ST.
MANITOWOC, WI 54220

A. State Manifest Document Number: INA 1302309

B. State Generator's ID

4. Generator's Telephone Number: 920) 682-0161

5. Transporter 1 Company Name: HYDRITE CHEMICAL-OSH
6. U.S. EPA ID Number: WID000712935 . . .

C. State Transporter's ID
D. Transporter's Phone: 920-233-8181

7. Transporter 2 Company Name: TRANSWOOD
8. U.S. EPA ID Number: NE0000080580 . . .

E. State Transporter's ID: 3629
F. Transporter's Phone: 800-220-1555

9. Designated Facility Name and Site Address
POLLUTION CONTROL INDUSTRIES
4343 KENNEDY AVENUE
EAST CHICAGO, IN 46312

10. U.S. EPA ID Number: IND000646943 . . .

G. State Facility's ID
H. Facility's Phone: 219-397-3951

11. U.S. DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE AEROSOLS, 2.1, UN1950, PG , (D001)	1	DM	105	P	D001
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) D018 D035

K. Handling Codes for Wastes Listed Above
501

15. Special Handling Instructions and Additional Information
a) H1192610 A112503

Emergency Phone Number: (800) 255-3924

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Printed /Typed Name: ROBERT A. PETERS | Signature: [signature] | Date: Month 06 Day 15 Year 99

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed /Typed Name: DALE J. GUDDEN | Signature: [signature] | Date: Month 06 Day 15 Year 99

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed /Typed Name: Verne Long | Signature: Verne Long | Date: Month 06 Day 22 Year 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest *(except as noted in Item 19)*
Printed /Typed Name: LINDA L. MAYDEN | Signature: [signature] | Date: Month 06 Day 22 Year 99

GENERATOR

TRANSPORTER

FACILITY

In Indiana spill, call the Indiana Office of Environmental Response at 317/2 45 *(day or night)* and National Response Center at 800 / 424-8802 or 202 / 426-2675.

INA1302309

EPA Form 8700-22 Previous editions are obsolete
State Form 45273 (R / 6-97)

COPY 4 TSD MAIL TO GENERATOR

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE

(Form designed for use on elite *(12-pitch)* typewriter.)

Form Approved: OMB No. 2050-0039. Expires 9-30-98

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: WID980570014 . . .
Manifest Document No.: [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal Law, but items D, F, H, I and K are required by State Law.

3. Generator's Name and Mailing Address
MANITOWOC ICE, INC.
2110 S. 26TH ST.
MANITOWOC, WI 54220

A. State Manifest Document Number: INA 1302309

4. Generator's Telephone Number: 920) 682-0161

B. State Generator's ID

5. Transporter 1 Company Name: HYDRITE CHEMICAL-OSH
6. U.S. EPA ID Number: WID000712835. . .

C. State Transporter's ID

D. Transporter's Phone: 920-233-8181

7. Transporter 2 Company Name: TRANSWOOD
8. U.S. EPA ID Number: NE0000080580. . .

E. State Transporter's ID: 3629

F. Transporter's Phone: 800-220-1555

9. Designated Facility Name and Site Address
POLLUTION CONTROL INDUSTRIES
4343 KENNEDY AVENUE
EAST CHICAGO, IN 46312
10. U.S. EPA ID Number: IND000646943. . .

G. State Facility's ID

H. Facility's Phone: 219-397-3951

11. U.S. DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE AEROSOLS,2.1,UN1950,PG , (D001)	1	DM	105	G	D001
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) D018 D035

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
a) H1192610 A112503

Emergency Phone Number: (800) 255-3924

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name | Signature | Date Month Day Year

TRANSPORTER

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed /Typed Name: DALE T. GUDEN | Signature | Date Month 06 Day 15 Year 99

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed /Typed Name | Signature | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest *(except as noted in Item 19)*:
Printed /Typed Name | Signature | Date Month Day Year

In case of a spill, call the Indiana Office of Environmental Response at 317/232-3745 *(day or night)* and National Response Center at 800 / 424-8802 or 202 / 426-2675.

INA1302309

EPA Form 8700-22 Previous editions are obsolete
State Form 45273 (R / 6-97)

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

HYDRITE CHEMICAL

GENERATOR	HYDRITE AUTHORIZATION #	STATE MANIFEST #
MANITOWOC ICE INC	119261-0-112503	INA 1302309

EPA WASTE CODE NUMBERS							
D001	D018	D035					

Is this waste ☒ Non-wastewater or ☐ Wastewater? (see 40 CFR 268.2) Check ONE
Indicate all the Universal Treatment Standards and/ or EPA Waste Codes as they apply to your waste by checking the appropriate boxes in sections A, B, C, D.
For those treatment standards not listed in sections A, B, C, or D, list their waste Code, Regulated Constituent, and treatment level in Section E.

SECTION A — IGNITABLE WASTE TREATMENT STANDARDS

WASTE CODE	Waste Description and Treatment/Regulatory Subcategory	WASTEWATER Concentration in mg/L or Technology Code	NON-WASTEWATER Concentration in mg/L unless noted as *mg/L TCLP or Technology Code
☐ D001	Ignitable Characteristic Wastes, except for the §261.21(a)(1) High TOC Subcategory, that are managed in non-CWA / non-CWA-equivalent / non-Class I SDWA systems.	DEACT and meet §268.48 Standards; or RORGS; or CMBST	DEACT and meet §268 • j standards or RORGS; or CMBST
☒ D001	High TOC Ignitable Characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1) - Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of non-wastewater only.)	N/A	RORGS; or CMBST

SECTION B — CORROSIVE WASTE TREATMENT STANDARDS

☐ D002	Corrosive Characteristic Wastes that are managed in non-CWA / non-CWA equivalent / non-Class I SDWA systems.	DEACT and meet §268.48 standards	DEACT and meet §268.48 standards
☐ D002	Corrosive Characteristic Wastes that are managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT

SECTION C — METAL WASTE TREATMENT STANDARDS

REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/L-TCLP	REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/L-TCLP	REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/L-TCLP
☐ Antimony	1.9	1.15	☐ Chromium (total) (D007)	2.77	0.60	☐ Selenium (D010)	0.82	5.7
☐ Arsenic (D004)	1.4	5.0	☐ Lead (D008)	0.69	0.75	☐ Silver (D011)	0.43	0.14
☐ Barium (D005)	1.2	21.0	☐ Mercury (non-wastewater from Retort)	N/A	0.20	☐ Thallium	1.4	0.20
☐ Beryllium	0.82	1.22	☐ Mercury - all others	0.15	0.025	☐ Vanadium	4.3	1.6
☐ Cadmium (D006)	0.69	0.11	☐ Nickel	3.98	11.0	☐ Zinc	2.61	4.3

SECTION D — WASTE TREATMENT STANDARDS

REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/kg (*mg/L-TCLP)	REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/kg (*mg/L-TCLP)	REGULATED CONSTITUENT	WASTEWATER mg/L	NON-WASTEWATER mg/kg (*mg/L-TCLP)
☐ Acetone	0.28	160	☐ 1,2 Dichloroethane	0.21	6.0	☐ Pyridine	0.014	16
☒ Benzene	0.14	10	☐ Ethyl acetate	0.34	33	☐ Tetrachloroethylene	0.056	6.0
☐ n-Butyl alcohol	5.6	2.6	☐ Ethyl Benzene	0.057	10	☐ Toluene	0.080	10
☐ Carbon disulfide	3.8	N/A	☐ Ethyl ether	0.12	160	☐ 1,1,1-Trichloroethane	0.054	6.0
☐ Carbon tetrachloride	0.057	6.0	☐ Isobutyl alcohol	5.6	170	☐ 1,1,2-Trichloroethane	0.054	6.0
☐ Chlorobenzene	0.057	6.0	☐ Methanol	5.6	0.75*	☐ 1,1,2-Trichloro-1,2,2 trifluoroethane	0.057	3.0
☐ Chloroform	0.046	6.0	☐ Methylene chloride	0.089	30	☐ Trichloroethylene	0.054	6.0
☐ O-Cresols	0.11	5.6	☒ Methyl ethyl ketone	0.28	36	☐ Trichloromonofluoromethane	0.020	30
☐ M & P Cresols	0.77	5.6	☐ Methyl isobutyl ketone	0.14	33	☐ Vinyl chloride	0.27	6.0
☐ Cyclohexanone	0.36	0.75*	☐ Nitrobenzene	0.068	14	☐ Xylene	0.32	30

SECTION E — WASTE TREATMENT STANDARDS NOT LISTED ABOVE

WASTE CODE	REGULATED CONSTITUENT	WASTEWATER	NON-WASTEWATER

SECTION F — CALIFORNIA LIST WASTES

☐ Liquid hazardous wastes having a pH less than or equal to two (2)
☐ Liquid hazardous wastes containing PCBs at a concentration greater than or equal to 50 ppm
☐ Liquid hazardous wastes that contain HOCs in total concentration greater than or equal to 1000 mg/L
☐ Nonliquid hazardous wastes containing HOCs in total concentration greater than or equal to 1000 mg/kg
☐ Free (amenable to chlorination) cyanides greater than or equal to 1000 mg/L
☐ One or more of the following metals greater than or equal to the following: Arsenic and/or compounds: 500 mg/L; Cadmium and/or compounds: 100 mg/L; Chromium and/or compounds: mg/L; Lead and/or compounds: 500 mg/L; Mercury and/or compounds: 20 mg/L; Nickel and/or compounds: 134 mg/L; Selenium and/or compounds: 100 mg/L; Thallium and/or ounds: 130 mg/L.

SECTION G — UNDERLYING HAZARDOUS CONSTITUENTS

If there are underlying hazardous constituents of concern which do not meet the treatment standard of 40 CFR 268.48, Table UST-Universal Treatment Standard, then mark all underlying constituents on page #2.
D001, D002, or D012-D043 to be treated in a non-CWA system, and that contain underlying hazardous constituents - Check all underlying hazardous constituents present.
An underlying hazardous constituent is defined at 40 CFR 268.2(i) as any constituent listed in the universal treatment standards table (40 CFR 268.48), present at a concentration above th constituent-specific treatment standard. These constituents and their treatment standards are listed on next page. D001 wastes (only) treated by incineration, fuels substitution, or organics recovery system do not require identification of underlying hazardous constituents. -

PCI

CERTIFICATE

This certificate is to verify that the waste specified is handled in accordance with all local, state and federal regulations as follows:

Manifest: INA1302309
Generator: MANITOWOC ICE INC

Section	Waste Stream	Handling Type
A	H119261	Recycled and/or Reclaimed

Facility Name: Pollution Control Industries
Facility Address: 4343 Kennedy Avenue
East Chicago, IN 46312
Facility EPA ID: IND000646943

Signature: T. R. McGillis
Typed Name: Thomas R. McGillis

Title: Materials Manager
Date: 6/24/99

I-111548

Pollution Control Industries
4343 Kennedy Avenue, East Chicago, IN 46312
(219)397-3951 FAX: (219)397-6411
www.pollutioncontrol.com

RESPONSIBLE RECYCLING℠
A commitment to our generators, our employees, and our community

920 683 7879

12/27/99 MON 13:10 FAX 920 683 7879 MANITOWOC ICE

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

EPA Form 8700-22 (Rev. 6-89)

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

Form Approved. OMB No. 2050-0039, Expires 9-30-96

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WID980570014

Manifest Document No.: 97978

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: MANITOWOC ICE, INC.
2110 S. 26TH STREET
MANITOWOC, WI 54221

Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" 414 683-7868

5. Transporter 1 Company Name: HERITAGE TRANSPORT, INC.

6. US EPA ID Number: IND058484114

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address: HERITAGE ENVIRONMENTAL SERVICES, IN
15330 CANAL BANK ROAD
LEMONT, IL 60439

10. US EPA ID Number: ILD085349264

A. Illinois Manifest Document Number: IL 7297978 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 9550716908

C. Illinois Transporter's ID: 1554

D. (317) 381-6848 Transporter's Phone

E. Illinois Transporter's ID:

F. ( ) Transporter's Phone

G. Illinois Facility's ID: 0311620007

H. Facility's Phone: (630) 739-1151

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. RQ, HAZARDOUS WASTE, LIQUID, N.O.S., 9, NA3082, PG III, (LEAD, SILVER) (D008,D011) ERG# 171	003	DM	01268 ~~00435~~	P	EPA HW Number: XXD011; Authorization Number: 000268
b. RQ, WASTE CORROSIVE SOLIDS, OXIDIZING, N.O.S., 8, UN3084, PG II, (FILTERS CONT. W/SULFURIC ACID/ HYDROGEN PEROXIDE) (F006,D002,D010) ERG# 140	001	CY	00435	P	EPA HW Number: XXF006; Authorization Number: 090011
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

J. Additional Description for Materials Listed Above

A. 21480-9 D008
B. 21480-2 D002 D010

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY PHONE #:

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: ROBERT A. WALTERS

Signature: Robert A. Walters

Date (Month Day Year): 03 10 97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: GERALD M MEYER

Signature: Gerald M Meyer

Date (Month Day Year): 03 10 97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Tracy Richardson

Signature: Tracy Richardson

Date (Month Day Year): 03 13 97

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802

RCVD BY FAX 12-27-99 KPL

D.Corrective Action