• E BLUE OR BLACK INK

FORM 2
NOTIFICATION OF DANGEROUS WASTE ACTIVITIES

NOV 22 1996

Washington State Department of Ecology
Attn: DW Notifications
P.O. Box 47658
Olympia, WA 98504-7658
(360) 407-6737

Note: Failure to properly and completely fill out your form may delay processing and/or cause your form to be returned for completion. Associated page numbers with detailed instructions are listed for each section.

1. **Notification.** Please select one of the following choices. (p. 5)

1.a. ☐ New notification **OR** 1.b ☐ Existing RCRA Site ID# WA D 045 705 175

If 1.a., complete entire form.

If 1.b., choose desired action below and fill in effective date.

DEPARTMENTAL USE ONLY

W	A									

☐ Revise Notification (complete entire form)

☐ Reactivate Site ID# (complete entire form)

X • **ADMINISTRATIVE WITHDRAWAL SITE ID#**

☐ Cancel Site ID# (skip sections 11 and 12)

Effective date: 12 (mm) 31 (dd) 94 (yy)

2.a. **SIC Code:** (p.7) ____ (Primary) ____ ____ ____

2.b. Type of business conducted at this site: (p.7) Automotive Service + Repair (?)

3. **Name of site** (p. 7) Pacemaker Industries

4. **Location of site** (p. 7)

Street E. 7203 Nova

City or Town Spokane

County Spokane State WA Zip 99206

5. • **LAST KNOWN MAILING ADDRESS**

Street or P.O. Box P.O. Box 11527

City Spokane State WA Zip 99211-1527

6. • **LAST KNOWN SITE CONTACT**

Name Robert Ramer

Job Title Pres. Phone Number

Mailing Address same as # 5

City State Zip

Revised 1/96

• REVIEWED SIGNATURE: DZ DATE: 11/22/96

State of Washington Department of Ecology

ENVIRONMENTAL COMPLAINT

DATE 12/23/88

TIME 11:30 ☐ a.m. ☐ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☑ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E District County

Complaint received by Peterson

1. Does the complainant wish to remain anonymous? ☐ Yes ☐ No

2. Complaint reported by:

Name Unknown Telephone No.

Address City State Zip

3. Date(s) of violation On-going

4. Type or kind of pollutant, if known Metals

5. Statement of problem (b) (6) says (b) (6) talked with a past employee of Pace Maker in Spokane — said that the company as an operation requiring anodizing metal — have two dip tanks. Every two months they dump the two tanks "out back" in a lot behind the business. (b) (6) seemed to know what (b) (6) talked about and swore to the validity of the source.

6. Alleged violator or source:

Name PaceMaker

Address City State Zip

7. Where did the violation occur?: Street

City County

Directions to place of incident:

Use reverse side for notes

Watercourse, if any

8. Description of damage (dead fish, etc.)

Referred to Jan Brzoska (Name) for investigation on 1/12/89 (Date)

(Use back of this form for sketch, map, additional notes, etc.)

ECY 010-23 Rev. 5/81

10:00 a.m.
1/12/89

Met with Robert Ramer at Pacemaker Industries. He said they have not dumped the material from their dip tank in back of their facility.

The 4 drums of h.w. were still stored at Pacemakers. Ramer had checked with Ecology Recovery Company, 16787 Beach Blvd, Huntington Beach, CA 92647. They will charge $500./drum for proper disposal. Ramer plans to check with a few other companies.

Ramer stated some one had taken his file pertaining to dangerous waste from his desk drawer. He wondered if it was the same person who was calling in the complaints.

File with site file

HAZARDOUS WASTE INVESTIGATIONS AND CLEANUP PROGRAM

REQUEST FOR CONCEPTUAL APPROVAL

Unanticipated Project*

Project Description We received a report through a television news reporter that Pacemaker Industries illegally disposed of ten to fifteen drums of hazardous waste. The company is located in the Spokane Valley and is over the sole source aquifer. (b) (6) the company stated (b) (6) trench and buried the 55-gallon drums on Burlington Northern property. The owner of the company denies any knowledge of the alleged disposal of hazardous waste. Our office has mobilized Olympus Environmental Services to locate, recover and properly dispose of the drums of waste material.

Intended Start Date July 17, 1990 **Completion Date** August 17, 1990

Cost $ 5,000 - $ 25,000 **(range)** **FTEs** .1 - .15 **(range)**

Match $ _____ **Unanticipated Funds $** _____

Proposed Source of Funds _____

Project Proponent Claude W. Sappington **Date** July 20, 1990

Section Head Claude W. Sappington **Date** July 20, 1990

Budget Planner David C. N. Howard **Date** 8/17/90

Program Manager Carol L. Fleskes **Date** 8/20/90

Carbon copies of approved form to Project Proponent, Section Head, Budget Planner and Contracts Unit Leader.

* **"Project" = Cooperative Agreement, Contract, or Work Assignment not in current spending plan.**

HWICP 6/89

Form 4 1990

GENERATOR ANNUAL DANGEROUS WASTE REPORT

1990 Form 4

PLEASE PRINT OR TYPE — Blue or Black Ink Only — (Form designed for use on Elite (12 pitch) typewriter) Use space between each character

RECEIVED
APR 28 1992
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

WAD045705175 90 4
PACEMAKER INDUSTRIES INC

Affix the label here.
Do not cross out incorrect information.

1. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER: WAD045705175

2. COMPANY NAME: PACEMAKER INDUSTRIES INC

3. SITE CONTACT PERSON, AND TITLE: LAST: ROBERT W RAMER FIRST: TITLE: PRES

PHONE NUMBER: 509-928-3456 ext.

4. COMPANY MAILING ADDRESS: PO BOX 11527

CITY: SPOKANE STATE: WA ZIP: 99211-1527

5. SITE LOCATION ADDRESS: E 7203 NORA

CITY: SPOKANE STATE: WA ZIP: 99212-

6. SITE LOCATION COUNTY: SPOKANE

7. WASHINGTON DEPT. OF REVENUE REGISTRATION (UBI) NUMBER: 000-010-7

8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES: PRIMARY 3499 SECONDARY OTHER

9. SITE EMPLOYMENT ON DECEMBER 31, 1990: 10

FOR ECOLOGY USE ONLY

DATE RECEIVED
MAR 1 1991

Init. DM Date 4/2/91
Init. Date
Revision ☐ Pages
Init. Date
Keypunched ☐
Init. Date
Verified Date
Batch No. 895-106
☐A ☐B ☐C

FOR ECOLOGY USE ONLY

SEND TO:

DEPT. OF ECOLOGY
Hazardous Waste Section
Attn: Annual Reports
R/6 No. 4
Mail Stop PV-11
Olympia, WA 98504-8711

Assistance 1-800-874-2022
(206) 459-6387

DUE DATE:

Postmarked
No Later Than
MARCH 1, 1991

WASHINGTON STATE DEPARTMENT OF ECOLOGY

10. REGULATORY STATUS CERTIFICATION—Refer to the instructions and/or the "Guide For Hazardous Waste Generators" to complete this section. Mark only one entry by placing your initials in the space provided. If none of these conditions apply to you, skip this section and complete the continuation sheet(s).

A. ☐ B. ☐ C. ☐ D. ☐ E. R 220 lbs. F. ☐

11. 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.

ROBERT W. RAMER — PRINT OR TYPE NAME

Robert W. Ramer — SIGNATURE (must be in ink)

2-27-91 — DATE SIGNED

ECY 28 (10/90) -1518-ecl28- 3

Form 4 1990 **GENERATOR ANNUAL DANGEROUS WASTE REPORT** 1990 Form 4

12. YOUR EPA/STATE I.D. NUMBER: WAD045705175

13. RECEIVING FACILITY (TSD)
EPA/STATE I.D. NUMBER:
NAME:
ADDRESS:
City: , State ZIP:

14. TRANSPORTER
EPA/STATE I.D. NUMBER:
NAME:
ADDRESS:
City: , State ZIP:

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number	B. Manifest Shipment Date (MM DD YY)	C. Status	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas	E. Chemical Nature O=Organic I=Inorganic	F. Waste Description (see instructions)	G. Dangerous Waste Number (see instructions and WAC 173-303)		H. Waste Designation D=DW E=EHW	I. Amount of Waste	J. WEIGHT	K. For TSD Facility Use Only
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												

16. COMMENTS (Enter information by section and/or line number—see instructions).

MAR 5 8 1995

Page 2 of 2

Form 4 1991

GENERATOR ANNUAL DANGEROUS WASTE REPORT

1991 Form 4

PLEASE PRINT OR TYPE — Blue or Black Ink Only — (Form designed for use on Elite (12 pitch) typewriter) Use spacebar between each character

RECEIVED APR 28 1992 DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE

WAD 045 705 175 A F4 91
000010775 3499
PACEMAKER INDUSTRIES INC
BOX 11527
SPOKANE WA 99211

1. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER: WAD045705175

2. COMPANY NAME: PACEMAKER INDUSTRIES INC

3. SITE CONTACT PERSON, AND TITLE: LAST RAMER; FIRST ROBERT; TITLE PRES

PHONE NUMBER: 509-928-3456 ext.

4. COMPANY MAILING ADDRESS

SUITE, APARTMENT NUMBER, ETC: PO BOX 11527

P.O. BOX OR STREET:

CITY: SPOKANE STATE: WA ZIP: 99211-1527

5. SITE LOCATION ADDRESS: E 7203 NORA

CITY: SPOKANE STATE: WA ZIP: 99212-

6. SITE LOCATION COUNTY: SPOKANE

7. WASHINGTON DEPT. OF REVENUE SALES TAX REGISTRATION NUMBER (UBI NUMBER): 328-054-380

8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES: PRIMARY 3499; SECONDARY; OTHER

9. SITE EMPLOYMENT ON DECEMBER 31, 1991: 10

10. REPORTING EXCEPTIONS: A. B. C. D. R 220 lbs. E.

11. 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.

ROBERT W. RAMER (PRINT OR TYPE NAME)

Robert W. Ramer (SIGNATURE (must be in ink))

3-10-92 (DATE SIGNED)

SEND TO: Washington State Department of Ecology
Hazardous Waste Annual Reports
Hazardous Waste Information and Planning
Olympia, WA 98504-7658

Assistance 1-800-874-2022
(206) 459-6387

DATE RECEIVED: MAR 12 1992

DUE DATE: Postmarked No Later Than MARCH 2, 1992

WASHINGTON STATE DEPARTMENT OF ECOLOGY

FOR ECOLOGY USE ONLY
Init. ____ Date ____
Init. ____ Date ____
Revision ☐ Pages ____
Init. ____ Date ____
Keypunched ☐
Init. ____ Date ____
Verified ____ Date ____
Batch No. ____
☐A ☐B ☐C

ECY 28B (11/91) -1518-ecl28-

Form 4 1989

GENERATOR ANNUAL DANGEROUS WASTE REPORT

1989 Form 4

PLEASE PRINT OR TYPE — Blue or Black Ink Only — (Form designed for use on Elite (12 pitch) typewriter) Use spacebar between each character

WAD045705175

PACEMAKER INDUSTRIES INC
ATTN: HAZARDOUS WASTE COORDINATOR
P.O. BOX 11527
SPOKANE WA 99211

You must complete Sections 1 through 4 in addition to placing the label here.
Do not cross out incorrect information.

1. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER: WAD045705175

2. COMPANY NAME: PACEMAKER INDUSTRIES INC

3. SITE CONTACT PERSON, AND TITLE (LAST / FIRST / TITLE): ROBERT W RAMER / RES
PHONE NUMBER: 509-928-3456 ext.

4. COMPANY MAILING ADDRESS: BOX 11527
CITY / STATE / ZIP: SPOKANE / WA / 99211-

5. SITE LOCATION ADDRESS: E7203 NORHAVE
CITY / STATE / ZIP: SPOKANE / WA / 99212-

6. SITE LOCATION COUNTY: SPOKANE

7. WASHINGTON DEPT. OF REVENUE REGISTRATION (UBI) NUMBER: 000-010-775

8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES: PRIMARY / SECONDARY / OTHER
? What guide ?

9. SITE EMPLOYMENT ON DECEMBER 31, 1989: 7

FOR ECOLOGY USE ONLY

DATE RECEIVED

Init. _____ Date _____
Init. _____ Date _____
Revision ☐ Pages _____
Init. _____ Date _____
Verified _____ Date _____
Batch No. _____
☐ A ☐ B ☐ C

FOR ECOLOGY USE ONLY

SEND TO:

DEPT. OF ECOLOGY
Hazardous Waste Section
Attn: Annual Reports
R/6 Bldg. 4
Mail Stop PV-11
Olympia, WA 98504-8711
Assistance 1-800-874-2022
(206) 459-6387

DUE DATE:

Postmarked
No Later Than

MARCH 1, 1990

WASHINGTON STATE DEPARTMENT OF ECOLOGY

REGULATORY STATUS CERTIFICATION—Refer to the instructions and the "Guide For Hazardous Waste Generators" (1988 or First Edition) to complete this section. Mark only one entry by placing your initials in the space provided. If none of these conditions apply to you, skip this section and complete the continuation sheet(s).

A. ☐ B. ☐ C. ☐ D. ☐ E. ☐ ____ lbs. F. ☐

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.

ROBERT W. RAMER — PRINT OR TYPE NAME
Robert W Ramer — SIGNATURE (must be in ink)
2-27-90 — DATE SIGNED

Form 4 1989 **GENERATOR ANNUAL DANGEROUS WASTE REPORT** 1989 Form 4

12. YOUR EPA/STATE I.D. NUMBER	13. RECEIVING FACILITY (TSD)		14. TRANSPORTER	
WA 045705175	EPA/STATE I.D. NUMBER: WAD 00812909	NAME: CHEMPRO-GEORGETOWN ADDRESS: 734 S. LUCIE ST. City: SEATTLE, State WA ZIP: 98108	EPA/STATE I.D. NUMBER:	NAME: ADDRESS: City: , State ZIP:

15. WASTE IDENTIFICATION

LINE	A. Manifest Document Number	B. Manifest Shipment Date (MM DD YY)	C. Status	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas	E. Chemical Nature O=Organic I=Inorganic	F. Waste Description (see instructions)	G. Dangerous Waste Number (see instructions and WAC 173-303)	H. Waste Designation D=DW E=EHW	I. Amount of Waste	J. WEIGHT CODE	K. For TSD Facility Use Only
	3865	4/13/89		SG.	I	WATER/CHROMIC ACID/HYDROGEN FLUORIDE	F006	EHW	1050.0	P	
						NITRIC-ACID - SLUDGE					

16. COMMENTS (Enter information by section and/or line number—see instructions).

Page ____ of

1988 Form 4 GENERATOR ANNUAL DANGEROUS WASTE REPORT 1988

Form 4

PLEASE PRINT OR TYPE (form designed for use on Elite (12-pitch) typewriter). BLUE OR BLACK INK ONLY

1. COMPANY NAME: PACEMAKER INDUSTRIES INC

2. EPA/STATE HAZARDOUS WASTE SITE IDENTIFICATION NUMBER: WA D0 4 5 7 0 5 1 7 5

3. SITE CONTACT PERSON: ROBERT W RAMER

CONTACT TITLE: PRESIDENT

CONTACT PHONE NUMBER: 5 0 9 - 9 2 8 - 3 4 5 6 ext.

4. SITE LOCATION ADDRESS
Street or Description (see instructions): E 7203 NORA

City: SPOKANE State: WA Zip: 9 9 2 1 6 -

SITE LOCATION COUNTY:

5. COMPANY MAILING ADDRESS
Street or P.O. Box: P O BOX 1 1 5 2 7

City: SPOKANE State: WA Zip: 9 9 2 1 1 -

6. WASHINGTON STATE DEPT. OF REVENUE REGISTRATION NUMBER
(DO NOT use your Federal Tax Number)
3 2 8 - 5 4 3 - 8 0

7. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES
Primary: 3 4 9 9
Secondary:
Other:

8. SITE EMPLOYMENT ON DECEMBER 31, 1988
1 8

DATE RECEIVED

Init:____ Date:____
Init:____ Date:____
Init:____ Date:____
Verified:____ Date:____
Batch No.____

9. REGULATORY STATUS CERTIFICATION

REFER TO THE INSTRUCTIONS FOR THIS SECTION AND THE "GUIDE TO ANNUAL REPORTING" WORKBOOK BEFORE COMPLETING THIS SECTION. MARK ONLY ONE ENTRY BY PLACING YOUR INITIALS IN THE SPACE PROVIDED. DO NOT COMPLETE PAGE 2 OF THIS REPORTING FORM IF ANY OF THESE CONDITIONS APPLY. IF NONE APPLY, COMPLETE THE ENTIRE FORM AND SKIP THIS SECTION.

A. ____ I.D. NUMBER CANCELLED OR WITHDRAWN—I certify that this site qualifies for this status and that I have read and understand the instructions for this section.

B. ____ EXEMPTIONS—WAC 173-303-017, or WAC 173-303-071, or WAC 173-303-120; or an exemption, variance, or petition pursuant to WAC 173-303-910 has been granted that applies to ALL wastes generated at this site. A WRITTEN, DETAILED EXPLANATION QUOTING WHICH SECTIONS APPLY IS ATTACHED TO THIS REPORT. I understand this does NOT apply to on-site or off-site recycling of wastes, and that recycled wastes and the residues from recycling must be designated and reported.

C. ____ TRANSPORTER ONLY—This does NOT apply if waste was generated or a spill cleanup occurred at this site.

D. ____ NO WASTE—I certify that NO WASTE was generated, stored or removed from this site during 1988.

E. ____ SQG—I certify that this site qualifies as an SQG as outlined in the instructions or in the "Guide to Annual Reporting". I have entered the maximum generated, or accumulated on-site prior to shipment during the year in the space provided. I understand this section applies only if this site generated or accumulated less than the ____ kgs. QEL for ALL wastes each and every month of 1988.

F. ____ OTHER—You MUST attach a detailed explanation with this form if you are declaring any other reporting exemption, or your form will be rejected.

SEND TO:
DEPARTMENT OF ECOLOGY
HAZARDOUS WASTE SECTION
ATTN. Annual Reports R/6
Mail Stop PV-11
Olympia, WA 98504-8711

FOR ASSISTANCE CALL:
1-800-874-2022
(Seasonal Toll Free Number)
Other times (206) 459-6281

DUE DATE:
Postmarked No Later Than
MARCH 1, 1989

10. 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. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, 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 method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.*

Robert W. Ramer, Pres.
PRINT OR TYPE NAME

Robert W. Ramer
SIGNATURE (must be in ink)

2-15-89
DATE SIGNED

Page 1 of ____ Pages

1988 Form 4 **GENERATOR ANNUAL DANGEROUS WASTE REPORT** Form 4 1988

11. YOUR EPA/STATE I.D. NUMBER	12. RECEIVING FACILITY (TSD)		13. TRANSPORTER	
WAD045705175	EPA/STATE I.D. NUMBER	NAME: ADDRESS: ZIP:	EPA/STATE I.D. NUMBER	NAME: ADDRESS: ZIP:

14. WASTE IDENTIFICATION

LINE	A. Manifest Document Number	B. Manifest Shipment Date (MM DD YY)	C. Status	D. Physical State S=Solid L=Liquid G=Sludge M=Compressed Gas	E. Chemical Nature O=Organic I=Inorganic	F. Waste Description (see instructions)	G. Dangerous Waste Number (see instructions and WAC 173-303)		H. Waste Designation DW or EHW	I. Amount of Waste	J. WEIGHT C O D H E	K. For TSD Facility Use Only
				S		F006 Dried Chrome Sludge	F006	DWL		4 ea. drms. Est. 300 lbs.	P	

15. COMMENTS (Enter information by section and/or line number—see instructions).
D. Sludge is being dried so it will be acceptable at the disposal site.

Page ____ of ____

FORM ECY 030-08 (Rev. 12-88) -28B-964-

I. EPA/STATE Hazardous Waste I.D.#

W A D 0 4 5 7 0 5 1 7 5

II. Waste Designated By:

____ RCRA/State ____ SQ/RCRA
____ State Only
____ Non-Regulated/Non-Handler/Protective Filing

III. Exemption Status:

____ RCRA Exempt Recycler
____ State Exempt Recycler
____ Below QEL
____ Other ____

IV. Handling

____ Emergency
____ Remedial Action
____ One-Time-Only
____ Other ____

DEPARTMENT USE ONLY

FORM 2

NOTIFICATION OF DANGEROUS WASTE ACTIVITIES

(send to) Attn: DW Notifications
Washington State Department of Ecology
M/S PV-11 Olympia, WA. 98504-8711
(206) 459-6369/6305

RECEIVED SEP 21 1988 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL OFFICE

DATE IN TO DEPARTMENT

Init.: hs Date: ____ Region: E
EPA: ____ Date: ____ Copy: ____
Input: ____ Update: ____ Ack.: ____

SEP 21 1988

DEPARTMENT USE ONLY

Type or Print in Ink—Form designed for use on Elite (12 pitch type)

1. [X] A. FIRST NOTIFICATION (no previous application has been made for this site)
[ ] B. REVISED NOTIFICATION date revisions effective: ____/____/____ (mm dd yy) (Enter existing site I.D. # in Part 1F. List sections you revised: ____.
[ ] C. WITHDRAW SITE I.D.# (Complete Sections 1F, 2A, 3, 5, 8 & 15. Enter existing I.D. # in Part 1F.)
[ ] D. REACTIVATE SITE I.D. # (Complete all sections of the form. Enter previously assigned I.D. # in Part 1F.)
[ ] E. CANCEL SITE I.D. # (Site closed—no longer own or conduct business at this site. Complete Sections 1F, 2A, 3, 5, 8 & 15. Enter existing I.D. # in 1F.)
[ ] F. EXISTING I.D. # (Complete for items 1B, C, D, & E only) WA

2.A. WASHINGTON STATE DEPARTMENT OF REVENUE REGISTRATION (TAX) NUMBER

C 3 2 8 — 5 4 3 — 8 0

2.B. SIC CODE(S)

PRIMARY: 3 4 9 9
SECONDARY:
OTHER:

3. NAME OF COMPANY

PACEMAKER INDUSTRIES INC

4. MAILING ADDRESS

STREET, P.O. BOX, OR RURAL ROUTE & BOX NO.: PO BOX 11527

CITY OR TOWN: SPOKANE
STATE: WA
ZIP CODE: 99211-1527

5. LOCATION OF WASTE ACTIVITIES (Installation)

DESCRIPTION OF PHYSICAL LOCATION (Follow Instructions Carefully): E 7203 NORA

CITY OR TOWN: SPOKANE
STATE: WA
ZIP CODE: 99206-

6. COUNTY WHERE THIS INSTALLATION IS LOCATED: SPOKANE

7. TYPES OF REGULATED DANGEROUS WASTE ACTIVITIES YOUR BUSINESS IS CONDUCTING (Read & follow instructions for this section carefully—Enter an "X" in any sections of 7A, 7B, or 7C below that may apply).

7A. HAZARDOUS WASTE ACTIVITIES (See instructions for definitions of these activities).

[X] 1. GENERATOR

[ ] 2. TRANSPORTER 2a. [ ] Transport Wastes Commercially (for hire).
2b. Modes of Transport: (1) [ ] Highway (2) [ ] Air (3) [ ] Rail (4) [ ] Water (5) [ ] Other (specify in comments).

[ ] 3. MANAGEMENT FACILITY (TSD) 3a. [ ] Facility accepts wastes from OFF-SITE Generators.
3b. Processes conducted or available at this facility;
(1) [ ] Treatment (2) [ ] Storage (>90 days) (3) [ ] Disposal
(4) [ ] Other (specify in comments).

[ ] 4. UNDERGROUND INJECTION OF WASTE(S).

[ ] 5. MARKET OR BURN DANGEROUS WASTE FUELS—5a. [ ] Generator Marketing to Burner 5b. [ ] Other Marketer
5c. [ ] Burner. (COMPLETE 7C—TYPE OF COMBUSTION DEVICE)

7B. USED-OIL FUEL ACTIVITIES.

[X] 1. OFF-SPECIFICATION USED-OIL FUELS-1a. [X] Generator Marketing to Burner 1b. [ ] Other Marketer 1c. [ ] Burner (Complete 7C)

[ ] 2. SPECIFICATION USED-OIL FUEL MARKETER (or ON-SITE BURNER) WHO FIRST CLAIMS THE OIL MEETS THE SPECIFICATION.

7C. DANGEROUS WASTE OR OFF-SPECIFICATION USED-OIL FUEL BURNING: TYPE OF COMBUSTION DEVICE.

(see instructions for definitions of combustion devices) 1 [ ] Utility Boiler 2. [ ] Industrial Boiler 3. [ ] Industrial Furnace.

7D. NEW REGULATORY REQUIREMENTS:
Indicate in the space provided, the activity you are notifying for, (if it is not listed above), for which you need an I.D. #. ____ (continue in Comments).

8. CONTACT PERSON

NAME (last), (first): RAMER ROBERT

TITLE: PRESIDENT

PHONE NO. (area code & number): 509-928-3456

9A. OWNERSHIP (Legal Owner(s) of this Company): PACEMAKER INDUSTRIES INC

OWNERSHIP (Legal Owner(s) of site (Property)) (If ownership is different than 9A. provide address in section 13)

10A. TYPE OF OWNERSHIP (enter letter code in box) SEE INSTRUCTIONS: P

10B. IS SITE LOCATED ON INDIAN TRUST LANDS? Y=Yes N=No: N

CONTINUED ON REVERSE

11. WASTE IDENTIFICATION (Copy page if you have more than 10 waste streams—other information (sections 12-15) not needed on continuation sheets)

A. LINE NUMBER	B. Description of Waste(s)	C. Dangerous Waste Number (refer to WAC 173-303)	D. Estimated or Actual Annual Waste Quantity	E. WEIGHT CODE
1	Laquer Thinner-Acetone & Toluene contaminated with Screen Printing Ink or paint	D001 F003 F005	50	P
2	Sludges contaminated with chrome (Trivalent)	F006	200	P
3	Used crankcase oil		500	P
4				
5				
6				
7				
8				
9				
10				

12. ESTIMATED MAXIMUM QUANTITY of all wastes, listed above, to be produced in any given month or per processing batch. In 12C. indicate maximum to be accumulated on-site prior to shipment.

12A. ☐ (Batch Frequency _____) QUANTITY [ ] WEIGHT [ ] CODE

12B. ☒ PER MONTH QUANTITY 60 WEIGHT P CODE

12C. Amount to be Accumulated on-site prior to shipment QUANTITY 2500 WEIGHT P CODE

13. COMMENTS (Enter Information by Section & Line Number—See Instructions)

11-3 This is picked up by a recycler when the 55 gal. drum is full.

14. FORMS AND INFORMATION REQUEST

(Check the box(es) of those items desired and indicate how many)

A._____ ☐ NOTIFICATION FORM
B._____ ☐ PART A PERMIT FORM FOR TSD FACILITIES
C._____ ☐ BIOLOGICAL TEST PROCED.
D._____ ☐ GENERATOR ANNUAL REPORT FORM
E._____ ☐ CHEMICAL TEST PROCED.
F._____ ☐ TSD FACILITY ANNUAL REPORT/UNMANIFESTED WASTE REPORT
G._____ ☐ DANGEROUS WASTE LEGISLATION (RCW 70.105) AND REGULATIONS (WAC 173-303)
H._____ ☐ DANGEROUS WASTE FEES LEGISLATION (RCW 70.105A) & REGULATION (WAC 173-305)
I._____ ☐ OTHER (specify)_____

15. CERTIFICATION (MUST BE SIGNED IN INK TO BE PROCESSED)

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: Robert W. Ramer	OFFICIAL TITLE (Print) President	DATE SIGNED: 9/19/88
PRINTED NAME: Robert W. Ramer		

Dangerous Waste Compliance Inspection
Narrative Report

I. Introduction

A. Facility: Pacemaker Industries, Inc.
P.O. Box 11527
Spokane, WA 99211

Owner: Robert Ramer

B. ID: WAD 045705175

C. Date of inspection: October 17, 1990
In: 1435
Out: 1610

D. Type of inspection: CEI

E. Inspectors: Bruce Howard

F. Report prepared by: Bruce Howard

G. Report date: 10/30/90

II. Facility Description

Pacemaker Industries manufactures and installs road signs. The company at one time contracted to paint stripes on roads, but have discontinued that business.

A. Notification/Permits - Pacemaker first notified as a generator in September of 1988, following a complaint investigation by this office.

B. Wastes Generated - Pacemaker uses a series of six tanks to clean and chrome-coat aluminum prior to making the signs. They generate a chrome sludge (previously designated as F006, but should be F019). In addition, Pacemaker generates corrosive wastewaters, D002. Finally, Pacemaker generates a small amount of spent lacquer thinner from cleaning painting equipment and removing ink from silk screens, F003/F005/D001.

III. Inspection Description

A. On-site walkthrough - I arrived at 1435 and introduced myself to Deanna Dunn at Pacemaker's front desk. I had not informed them prior to arrival that I would conduct an inspection. Robert Ramer was not present, and I met with Dave Sisk, Foreman. I informed Mr. Sisk of the purpose of my visit, and we proceeded to look at all areas of generation and storage.

1. Units

a. The six process tanks are the main point of generation (see attached diagram). All the tanks have capacities in the 1000 to 1500 gallon range, according to Mr. Sisk. Their contents are as follows: Tank 1 consists of a soap solution, caustic. Tank 2 is a rinse bath. Tank 3 is an acid deoxidizer, followed by Tank 4, another rinse. Tank 5 is a chrome acid bath, followed by a final rinse.

The rinse tanks 2 & 4 are refilled every four to six weeks. They are drained simultaneously to a basin in the shop floor which discharges to a dry well on-site. Tanks 1 & 3 are replenished approximately at 18 and 36 months, respectively. Their contents are pumped to a holding tank and residue is cleaned from the tank bottoms. The residue from Tank 3 has been managed as a solid waste; some residue from Tank 1 was on-hand at the time of inspection. Tank 5, the chrome acid bath, is replaced once every four to five years. Mr. Sisk was unsure how the waste was handled at that time. Tank 6 is refilled two or three times a year. Mr. Sisk indicated that the chrome rinse is neutralized and then discharged to the drain field, leaving behind the chrome-contaminated sludge that is Pacemaker's main waste stream currently.

Pacemaker plans to install a water recycling system. I told Mr. Sisk I would put him in touch with Ecology's Waste Reduction, Recycling, and Litter Control Section to help them with these plans.

b. Pacemaker is currently using petroleum naptha to clean inks used in the silk screening process. This material is used in small amounts (less than five gallons of product was on-hand during the inspection), and is recycled through a pump with a filter until it becomes too dirty to use. This material was some that complainants have alleged is dumped on the ground. There was a drum of unknown that Mr. Sisk believed to be ink sludge and solvent.

c. Pacemaker also uses a small amount of paint thinner to clean paint spraying equipment. Mr. Sisk indicated that spent thinner was evaporated on-site.

d. Pacemaker had eleven drums of chrome sludge in storage at the time of the inspection. The company had been drying the sludge by leaving the barrels open and by placing sludge in a drum cut open along its length (see photo #5). In addition, there was one drum of "soap sludge" present, and several barrels with unknowns. One of these, Mr. Sisk suspected, contained waste ink sludge/ solvent.

2. Physical violations

a. Pacemaker was storing waste in containers that were opened and labelled improperly. In addition, the company has not documented any inspections of container storage area. The storage area for the waste lacks a containment system. These are violations of WAC 173-303-630.

b. Pacemaker has not sufficiently characterized waste streams on site, a violation of WAC 173-303-170.

c. Pacemaker has been evaporating lacquer thinner to the air, in violation of WAC 173-303-145.

d. Pacemaker violated the 90-day accumulation limit and additional requirements of WAC 173-303-200.

e. Pacemaker has regularly discharged wastewaters without a permit to a dry well on-site, a violation of WAC 173-303-145.

B. Document Review - While Pacemaker does maintain copies of Form 4s, Form 2s, and manifests on-site, the company has no inspection logs, no spill or contingency plan, and no training plan.

a. Pacemaker has not met the personnel training requirements of WAC 173-303-330.

b. Pacemaker has not met the requirements for preparedness and prevention of WAC 173-303-340.

c. Pacemaker has not met the contingency plan and emergency planning requirements of WAC 173-303-350 and -360.

MEMORANDUM

To: Roger Ray, Water Quality
Leslie Getchell, WRRLC

From: Bruce Howard, SHW

Date: November 6, 1990

Re: Pacemaker Industries, Inc.

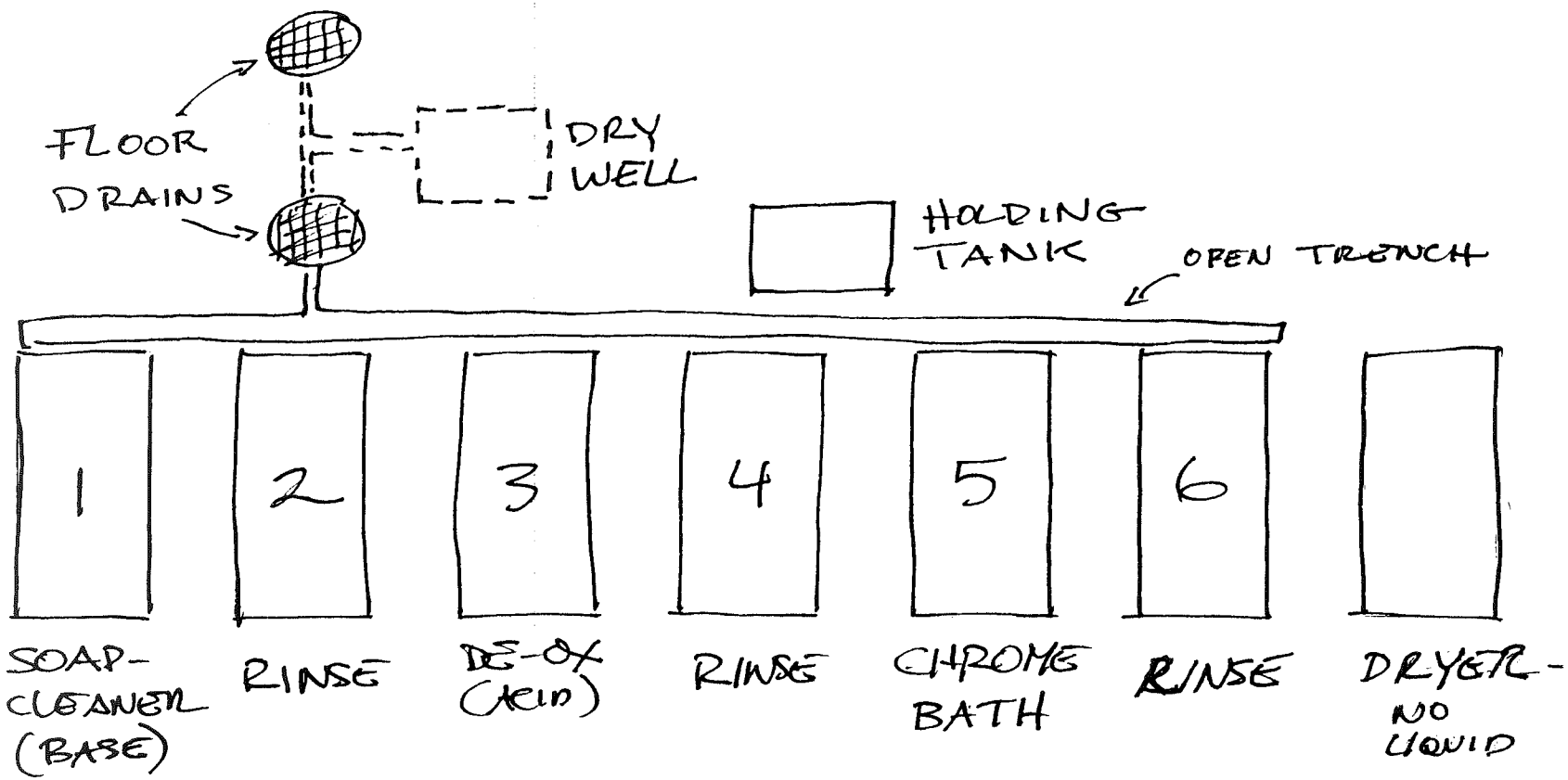
During an October inspection of Pacemaker Industries, I confirmed that the company has been disposing of rinse wastewater, and other treated wastewater, to a dry well on site (the septic drainfield system is totally separate, according to Robert Ramer, company president).

These discharges emanate from six process tanks in an aluminum coating line (see attached diagram). The tanks range in volume between 1000 and 1500 gallons, according to the company. Rinse tanks 2 & 4 are drained simultaneously every four to six weeks, according to Mr. Dave Sisk, foreman. The company counts on these two rinses to neutralize each other. Mr. Sisk indicated pH paper is used to monitor discharges. Tanks 1 & 3 are replenished approximately every 18 and 36 months, respectively. Their contents are pumped to a holding tank while residues are removed from the tanks. Tank 5, the chrome bath, is replaced once every four to five years. Mr. Sisk was unsure of how the waste solution was handled. Tank 6 is refilled two or three times a year. Mr. Sisk indicated that the rinse is neutralized then discharged to the dry well. The chrome sludge that is a residue is the company's main dangerous waste stream currently.

I informed Pacemaker at the time of inspection that discharge of wastewaters to the dry well without a permit was illegal. I suggested they contact Tim Pelton regarding treatment and disposal at the wastewater treatment plant. I also told them that I would refer this matter to our water quality section. In addition, Pacemaker indicated a desire to begin recycling of rinsewaters. I suggested they contact the WRRLC section for technical assistance and told them I would refer this matter to them as well.

We will be issuing an Order to the company regarding some of the dangerous waste issues on site. They have been generally cooperative and would benefit from the assistance you might give them. They have since indicated that they have ceased discharge and have added a tank to aid in recycling. They are most dependent, as many companies are, on the information they receive from their chemical suppliers. Now is an excellent time to help them as they re-think their waste and wastewater problems.

cc: Ken Merrill, WQ
John Arnquist, WRRLC



ALUMINUM COATING LINE

PACEMAKER INDUSTRIES

(10/90)

B. HOWARD

(all drawings only approximate site)

Document reviewed: PACEMAKER FND. INSP. REPORT

Date of document: 10/29/90

I have reviewed the attached document prepared by this offfice and concur with the information presented.

Wayne Kraft

Peer review

Date: 11/6/90

James L. Malm

~~Bruce F. Howard~~ JAMES L. MALM

~~Hazardous Waste Unit Supervisor~~ SECTION SUPERVISOR

Solid and Hazardous Section

Date: 11-29-90

Dangerous Waste Compliance Inspection
Narrative Report

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F. Report prepared by: Bruce Howard

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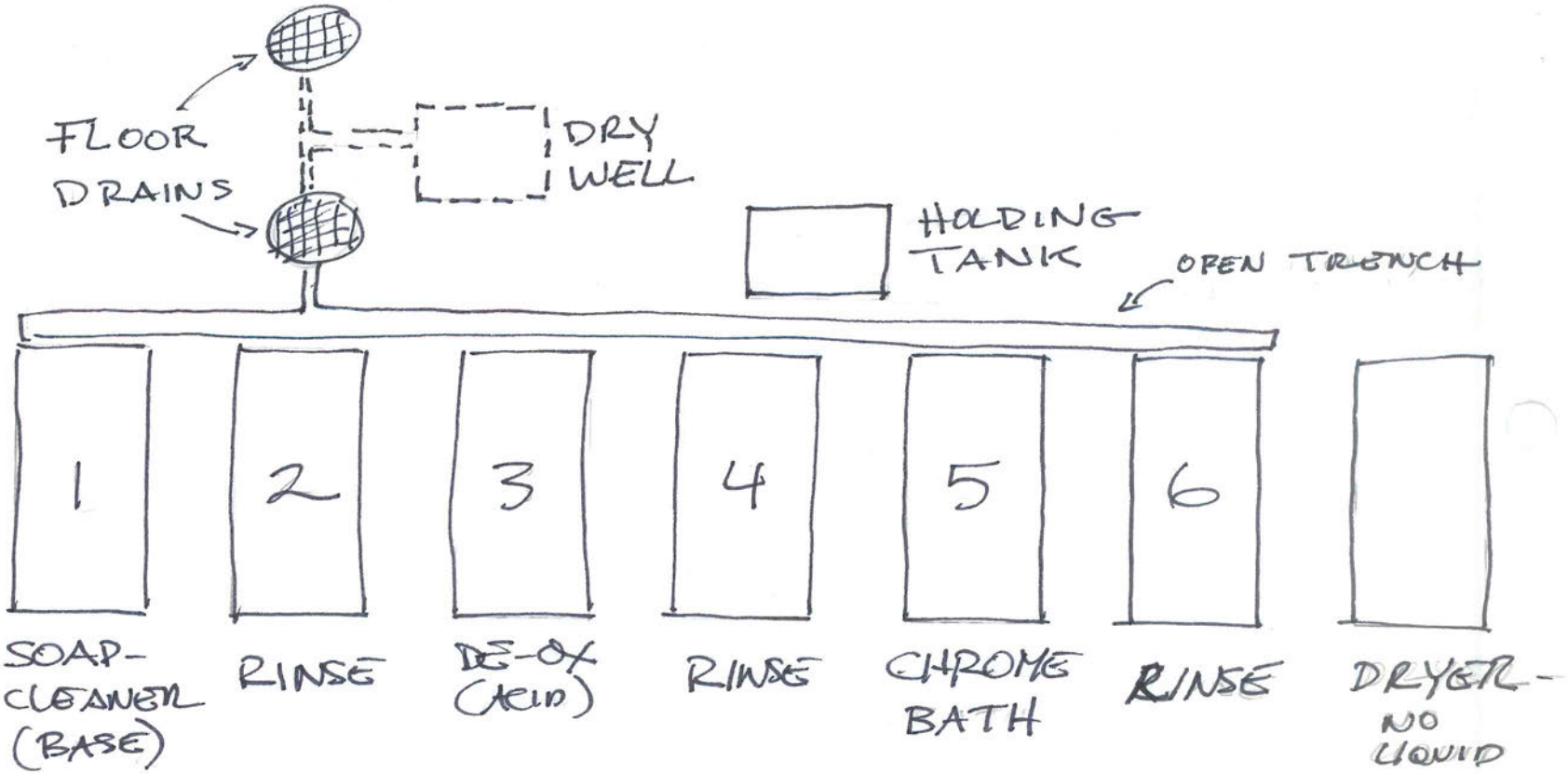

ALUMINUM COATING LINE

PACEMAKER INDUSTRIES

(10/90)

B. HOWARD (all drawings only approximate site)

FY 1989 HAZARDOUS WASTE COMPLIANCE MONITORING AND ENFORCEMENT LOG

1. EPA ID: W A D 0 4 5 7 0 5 1 7 5

**SEE REVERSE SIDE FOR CODES

2. NAME: PACEMAKER INDUSTRIES, INC

3. ADDRESS: P.O Box 11527 Spokane, WA 99211

4. INITIAL EVALUATION DATE: 10 / 17 / 90

5. EVALUATION TYPE:

Following on

- ✓ 1 COMPLIANCE EVALUATION INSPECTION (CEI)
- ___ 2 SAMPLING INSPECTION
- ___ 3 RECORD REVIEW
- ___ 4 COMPREHENSIVE GW MONITORING EVALUATION(CME)
- ___ 5 COMPLIANCE SCHEDULE EVALUATION (CSE)
- ✓ 6 OTHER-COMPLAINT/TIP
- ___ 7 OTHER-PART B CALL-IN
- ___ 8 OTHER-WITHDRAWAL CANDIDATE
- ___ 9 OTHER-CLOSED FACILITY
- ___ 10 PARTIAL INSPECTION
- ___ 11 CASE DEVELOPMENT INVESTIGATION
- ___ 12 O & M INSPECTION
- ___ 13 CORRECTIVE ACTION OVERSIGHT INSPECTION

6. SUBSEQUENT EVALUATION DATE: 11 / 09 / 90

7. RESPONSIBLE AGENCY (Code**): S

8. CONTACT PERSON (Initials): B F H

9. AREA AND CLASS OF VIOLATION/ PROBLEM**

CLASS	GW/RLS	CP	FR	PB	CS	MA	OT	LB
I							X	
II								
III								

10. COMMENTS:
(Please limit to 80 characters per line)

CONDUCTED INSPECTION AS
PART OF COMPLAINT
FOLLOWUP

11. ENFORCEMENT ACTIONS:

CLASS	AREA	ACTION TYPE**	ACTION DATE	COMPLIANCE SCHEDULED	COMPLIANCE ACTUAL	PENALTY ASSESSED	PENALTY COLLECTED	RESP AGCY**	CONT PERS	HEARING DATE
I	OT	ORDER	12/7/90	1/7/90						

12. COMMENTS:
(Please limit to 80 characters for each line of enforcement.)

DANGEROUS WASTE COMPLIANCE CHECKLIST/QUESTIONNAIRE, CHAPTER 173-303 WAC

****

PART I: COVER INFORMATION

This part of the checklist/questionnaire is applicable to all persons who handle dangerous waste. This cover information includes a review of the Notification Form and confirmation of other general information necessary to maintain accurate files and records.

****

I. INSPECTOR INFORMATION

WDOE Inspector: Bruce Howard

: _____

Phone: (509) 456-2926

: _____

Office (circle one): NW SW C (E) IND

Date of THIS Inspection: 10/17/90

Date of LAST Inspection: N/A

Other Inspectors Present:

Name: N/A Agency: _____ Phone #: _____

: _____ : _____ : _____

INSPECTION TYPE

Generator ✓

Transporter _____

TSDF _____

Scheduled _____

Drop-in ✓

RCRA _____

State-only _____

2. BUSINESS INFORMATION

Business Name: PACEMISKON INDUSTRIES EPA/State ID #: WAD 045705175

Address: P.O. Box 11527

Spokane, WA

Zip Code: 99211 County: Spokane

Business Location (If: E. 7203 NORA

Other Than Address) _____

Contact Person: ROBERT Ramer Phone #: 928 3456

: Dave Sisk : _____

Were samples taken during the inspection? Yes ____
No ✓

If yes, where and of what were samples taken:

_____

_____

_____

_____

Were samples split with the owner/operator? Yes ____ N/A
No ____

Were chain of custody procedures followed? Yes ____ N/A
No ____

Business Representative Present During Inspection:

Name: DAVE SISK Title: Foreman Phone #: 928-3456

: _____ : _____ : _____

: _____ : _____ : _____

3. NOTIFICATION FORM REVIEW

Notification Form Filed: Yes ✓ No ____ Date: 9/88

Notification Form Revisions: Yes ____ No ✗ Date: _____

Date: _____

Date: _____

Is the information provided in the most recent Notification Form still accurate? (If not, note any deficiencies in Comments, below.) Yes ____ No ____

Comments: MIS-DESIGNATED F019 WASTE AS F006

4. ADDITIONAL INSPECTION INFORMATION

Time Inspector Entered Site: 14:35

Left Site: 16:10

Were photographs taken during the inspection? Yes ✓

If yes, how many? 5 No ____

(Note: A brief description of the pictures should be prepared and included in the inspection report.)

Were many problems encountered regarding:

Permission to enter the site: NO

Permission to have access to any areas on the site: NO

Permission to have access to any records: NO

Other: _____

DANGEROUS WASTE COMPLIANCE CHECKLIST/QUESTIONNAIRE, CHAPTER 173-303 WAC
March 1987

* *

PART II: GENERATORS

This part of the checklist/questionnaire is applicable to any person whose actions or processes generate dangerous wastes, and are thus identified as generators under Chapter 173-303 WAC. This part of the checklist/questionnaire must be completed for any person who is a generator, including transporters or TSD facilities which generated dangerous waste.

* *

Generator Name: PACEMAKER INDUSTRIES EPA/State ID #: WAD 045 205 175

Inspectors Name: Bruce Howard Date: 10/17/90

Has this generator generated dangerous waste since the date of his last inspection, or since the date he was determined to be a generator if this is his first inspection? (If "No," explain how the generator assures that no dangerous wastes are generated in the Comments section, below, and do not complete the remainder of this part of this checklist/questionnaire.)

Yes ✓

No ___

Comments: ____

1. WASTE DETERMINATION (WAC -016 and -017) — Yes / No

A. Has the generator properly determined which of his secondary materials are solid wastes under WAC 173-303-016? — Yes ✓

B. Does the generator generate secondary materials to be used in a manner constituting disposal, burned for energy recovery, accumulated speculatively, or which are inherently waste-like? — Yes ✓

If yes, the following three exemptions do not apply.

C. Does the generator use or reuse secondary materials as ingredients in an industrial process to make a product — N/A

provided the materials are not being reclaimed? N/A

D. Does the generator use or reuse secondary materials or effective substitutes for commercial products provided the materials are not being reclaimed? N/A

E. Does the generator return secondary materials as raw material feedstock to the original process from whcih they were generated without first being reclaimed? N/A

F. If the generator has claimed that any of his materials are not wastes, can the generator demonstrate and provide documentation that a known market or disposition for the material exists and that he meets the terms of the exemption or exclusion? N/A

2. DESIGNATION (WAC -170(1)).

	Yes	No
A. Does the generator properly designate his dangerous wastes as DW and/or EHW? (had misdesignated waste F019 as F006	✓	
B. Does the generator have adequate information to perform these designations?		
C. If designation involves performing tests and analyses of his wastes:		
a. Does the generator have on-site, or have ready access to, equipment for obtaining and preserving waste samples for tests?	N/A	
b. Do the waste analyses and test results provide enough information to accurately designate the generator's dangerous wastes (WAC -170(1)(a))?	N/A	
c. Does the generator retain copies of all waste analyses used to designate his dangerous wastes for a minimum of three years (WAC -210(3))?	N/A	

Comments

3. RECYCLING ACTIVITIES

	Yes	No
A. Are any of the generator's wastes recycled?		X

If no, skip this section (3) and continue with section 4.

If yes, the recyclable material may fall into one of three categories:

- It may be "exempt" under WAC 173-303-016, -017, -071, or -120(2);
- It may be subject to special standards under 173-303-500 through 173-303-525; or
- Where no special standards exist, any storage prior to recycling is fully regulated either under the usual generator accumulation or facility storage provisions, while the recycling process itself is not regulated. (WAC -120(4))

The remainder of this section identifies those recyclable materials for which special standards exist. REMINDER: These special standards apply to the recycling of dangerous wastes. Certain recycling practices do not involve wastes at all.

n/a

B. Used Oil

	Yes	No
a. Does the generator generate used oil to be burned for energy recovery?		
If yes, the generator standards do not apply to these wastes (although marketer and/or burner standards may apply).		
b. Does the generator burn their own or do-it-yourselfer used oil in used oil-fired space heaters with a maximum capacity of not more than .5 million Btu per hour, which is vented to the outside air?		
If yes, neither the generator or burner standards apply to these wastes.		
c. Does this person market used oil directly to a person who burns it for energy recovery?		
i. For persons marketing used oil that meets the specifications, are records maintained for at least three years of test results (or other information) to document that the used oil meets all of the specifications in Table 1 of WAC -515(1)? (WAC -515(4)(b)(i))		
Does the marketer also record in an operating log and keep for three years the following		

information on each shipment of used oil that meets the specifications:

- name and address of receiving facility;
- quantity of used oil delivered;
- date of shipment or delivery; and
- cross-reference to the record of test analyses or other information used to make the determination that the oil meets the specifications?

(WAC -515(4)(b)(vi)(A))

N/A

ii. Does the marketer market off-specification used oil only to industrial facilities, boilers, or other marketers? (WAC -515(2)(a))

iii. Has the marketer notified WDOE of his used oil management activities? (WAC -515(4)(b)(iii))

iv. When a marketer initiates a shipment of off-specification used oil, does he prepare and send to the receiving facility an invoice containing at least:

- an invoice number;
- the marketer's and receiving facilities' ID#s, names and addresses;
- quantity of used oil ,
- date(s) of shipment or delivery; and
- a statement that the used oil is subject to WDOE regulation under WAC 173-303-515?

(WAC -515(4)(b)(iv))

v. Before first shipment of off-specification used oil to a burner or other marketer, does the marketer obtain a written and signed notice from the burner or marketer certifying that:

- o the burner or marketer has notified WDOE of his activities, and
- o if a burner, will burn the off-specification used oil in an industrial furnace or boiler?

vi. Before a marketer accepts the first shipment of off-specification used oil from another marketer, does he provide the other marketer with a one-time written and signed notice certifying that he has notified WDOE of his used oil management activities? (WAC -515(4)(b)(v)(B))

vii. Does the marketer keep records of invoices and certification notices for shipments of off-specification used oil at least three years? (WAC -515(4)(b)(vi)(B))

C. Spent-lead Acid Batteries

	Yes	No
Does the generator generate spent-lead acid batteries destined for recycling?	N/A	

If yes, the generator standards do not apply to these wastes.

D. Precious metals

	Yes	No
Does the generator generate precious metals (i.e., gold, silver, platinum, paladium, irridium, osmium, rhodium, ruthenium, or any combination of these) destined for recovery?		

If yes, only the next two questions apply.

	Yes	No
a. Does the generator have an ID#? (-525(1)(b)(i))		
b. Does the generator comply with the manifest requirements of WAC 173-303-180? (-525(1)(b)(ii))		

Complete Section 3 of this Part (II) to determine this.

E. Fully regulated

Does the generator generate:

	Yes	No
i. dangerous waste to be burned for energy recovery?		
ii. recyclable materials that become products used by the general public in a manner constituting disposal?		
iii. state-only wastes to be recycled?		
iv. any other recyclable materials not exempt under WAC 173-303-017 or 173-303-071?		

If yes to any of these questions, then full generator requirements apply. Complete the rest of this Part (II).

Comments _____

4. SHIPPING DANGEROUS WASTE OFF-SITE

	Yes	No
A. Does he generator ship any dangerous wastes off-site that must have accompanying manifests as required under WAC -180? (If "No," do not complete Section 5. Manifests, Section 6. Preparing Dangerous Waste for Transport, and Section 7. Import/Export of Dangerous Waste.)	X	

B. Does the generator ever also transport his own wastes? (If "YES" be sure to also complete Part III: Transporters of this checklist/questionnaire.)

Yes	No
	X

C. List below any "outside" transporters the generator uses to transport his dangerous wastes off-site:

Transporter Name	EPA/State ID #
Van Waters & Rogers	WAD 000 872909

Comments

5. MANIFESTS (WAC -180).

	Yes	No
A. Does the generator retain a completed copy of each manifest signed by the initial transporter for at least three years, or until he receives a signed copy from the designated facility indicating receipt of the waste which copy he keeps for at least three years from the date the initial transporter accepted the waste (WAC 210(1))?	✓	
B.a Does the generator use an alternative manifest mechanism for moderate risk wastes as provided in WAC -170(4)(a)?	N/A	
b. Has this alternative manifest mechanism been approved by WDOE?	N/A	
c. Has the generator complied with the terms and conditions of, and properly implemented the alternative manifest mechanism? (If not, specify what failures occurred under Comments, below.)	N/A	

Note: If all of the dangerous wastes handled by the generator are moderate risk wastes covered by an alternative manifest mechanism, then complete only items G., H., I,, and J,, below. If only some of the generator's dangerous wastes are moderate risk wastes covered by an alternative manifest mechanism, then do complete all remaining items, below.

		Yes	No
C.	Does the generator use the Uniform Manifest (WAC -180(1))?	X	
	Does the generator include the additional WDOE information required for the Uniform Manifest:		
	a. In Item D - the first transport's telephone number (WAC -180(1)(a))?	✓	
	b. In Item F - the second transporter's telephone number, if a second transporter is used (WAC -180(1)(b))?	✓	
	c. In Item H - the designated receiving facility's telephone number (WAC -180(1)(c))?	✓	
	d. In Item I - the dangerous waste number for each corresponding waste entered and described under Item 11 (WAC -180(1)(d))?	✓	
D.	Is signature of, and date of acceptance by the transporter obtained prior to transport (WAC -180(3)(a))?	✓	
E.	Does the generator retain one copy, signed by the transporter, and give remaining copies to the transporter at time of transport (WAC -180(3)(a) and (b))?	✓	
F.	Has the generator received copies of all his manifests, signed, dated, and returned by the receiving TSD facilities?	✓	
	Were all of these received within forty-five days after the waste was transported? (If "Yes," do not complete the next item, G., regarding Exception Reports.)		
G.a.	If the generator does not receive a copy of the manifest with the handwritten signature of the designated facility's owner/operator within thirty-five days after the initial transporter accepted the waste, does he contact the transporter(s) and/or facility to determine the status of the dangerous waste shipment (WAC -220(2)(a))?	N/A	
b.	Has the generator submitted in writing to WDOE an Exception Report for each manifest not signed, dated, and returned by the receiving TSD facility within forty-five days of transport (WAC -220(2))?	N/A	

c. List the dates during the previous year that Exception Reports were submitted: _____

_____

_____

	Yes	No
d. Were the waste shipments described in these Exception Reports finally delivered to a TSD facility? If not, specify which shipments were not delivered or not found: _____ _____ _____	N/A	
e. Does the generator retain copies of all Exception Reports for a minimum of three years (WAC -210(2))?	N/A	
H. If the transporter is unable to deliver the dangerous waste shipment to either the designated or alternate facility, does the generator either designate another facility for delivery or instruct that the shipment be returned to him when contacted by the transporter for further instructions (WAC -180(3)(c))?	N/A	
I. When shipping dangerous waste within the United States solely by water (bulk shipment), does the generator send three copies of the manifest signed and dated by himself and the initial transporter to either the owner/operator of the designated facility, or to the last water transporter to handle the waste in the U.S. if the waste is exported by water (WAC -180(3)(d))?	N/A	
J. For rail shipments within the United States which originate at the site of generation, does the generator send at least three copies of the manifest signed and dated by himself and the initial transporter to either (WAC -180(3)(e)):	N/A	
a. The next nonrail transporter, if any?		
b. The designated facility if transported solely by rail?		
c. The last rail transporter to handle the waste in the U.S. if exported by rail?		

Comments _____

6. PREPARING DANGEROUS WASTE FOR TRANSPORT OFF-SITE (WAC -190).

	Yes	No
A. Does the generator package his dangerous waste for transport in accordance with U.S. DOT rules, 49 CFR Parts 173, 178 and 179 (WAC -190(1))?	✓	
B. Does the generator label and mark each of his packages for shipment in accordance with U.S. DOT rules, 49 CFR Part 172 (WAC -190(2) and (3)(a))?	✓ (prior to transport yet)	
C. Does the generator mark each package containing 110 gallons or less of dangerous waste, and display in accordance with 49 CFR 172.304, the following or equivalent words and information (WAC -190(3)(b)): HAZARDOUS WASTE - State and Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority, and the Washington State Department of Ecology or the United States Environmental Protection Agency. Generator's Name and Address _____.		
Manifest Document Number _____.		X (drums were not so marked at time of inspection)
D. Does the generator placard, or offer to the transporter all appropriate placards, in accordance with U.S. DOT rules 49 CFR Part 172 Subpart F (WAC -190(4))?		X

Comments no placards on site - will be on transporter

7. IMPORT/EXPORT OF DANGEROUS WASTE (WAC -230).

	Yes	No
A. Does the generator import or export any dangerous waste? (If "No," skip the remainder of the questions in this item.)		X
B. If the generator exports dangerous waste to other countries, he must comply with 40 CFR Part 262.50. However, Ecology does not yet have authority to implement these standards because they were adopted under the authority of HSWA.		N/A
C. If the generator imports waste from foreign countries, does he:		

a. Comply with all other requirements for generators (WAC -230(2))?

b. Comply with the Uniform Manifest requirements (including additional WDOE information), except that in place of the generator's name, address, and ID # he enters the name and address of the foreign generator and the importer and the importer's ID #, and in place of the generator's signature on the certification the importer or his agent signs and dates the certification and obtains the transporter's signature (WAC -230(2))?

	Yes	No
a.		
b.	N/A	

Comments _____

8. TRIPLE RINSING (WAC -230(3), (4) AND -160).

A. Does the generator triple rinse all containers which are empty and which held EHW in accordance with WAC -160?

B. Does the generator either reuse rinsate from any rinsing operations (including rinsing of tote tanks, truck or railroad tank cars, WAC -230(4)) in a manner consistent with the original product, or else determine if the rinsate is designated as dangerous waste and, if so designated, handle it in accordance with Chapter 173-303 WAC and Chapter 90.48 RCW?

	Yes	No
A.		N/A
B.		

Comments _____

9. NON-PERMITTED SPILLS AND DISCHARGES (WAC -145).

A. Have there been any nonpermitted spills or discharges on the generator's site which have not been reported to WDOE?

If yes, describe what wastes were spilled and approximately what quantities:

	Yes	No
A.	* uncertain — some discharge to drain field — unknown if it is DW —	

waste water were discharged to drainfield — referred to WQ Section

	Yes	No
B. If the generator has any nonpermitted spill or discharge to ground or to surface or ground waters, does he:		
a. Notify the appropriate regional office of WDOE (WAC -145(2)(a))?	N/A	
b. Notify all local authorities in accordance with the local emergency plan (if necessary, by checking with the local emergency service coordinator and fire department to determine notification responsibilities under the plan) (WAC -145(2)(a))?		
C. If the generator has any nonpermitted spill or discharge which results in emissions to the air, does he:	N/A	
a. Notify the local air pollution control authority if the spill or discharge is in western Washington (WAC -145(2)(b))?		
b. Notify the appropriate regional office of WDOE if the spill or discharge is in eastern Washington (WAC -145(2)(b))?		
c. Notify all local authorities in accordance with the local emergency plan (if necessary, by checking with the local emergency service coordinator and fire department to determine notification responsibilities under the plan) (WAC -145(2)(b))?		
D. When the generator has any nonpermitted spill or discharge, does he:	N/A	
a. Take appropriate immediate action to protect human health and the environment (WAC -145(3))?		
b. Whenever required by WDOE:		
i. Clean up all released wastes or take such other actions as may be required or approved by federal, state, or local officials acting within their responsibilities (WAC -145(3)(a)(i))?		
ii. Designate and treat, store, or dispose of all soils, waters or other materials contaminated by the spill or discharge (WAC -145(3)(a)(ii))?		

iii. Restore the area impacted by the spill or discharge and replenish resources, if the impacted property is not owned by the generator (WAC -145(3)(a)(iii)?

Yes	No
N/A	

Comments

10. ANNUAL REPORTS

	Yes	No
A. Does the generator retain copies of Annual Reports for a minimum of three years (WAC -210(2))?	✓	
B. Is the generator generating any wastes which were not reported on his latest Annual Report and which should have been reported?		

If "Yes," describe these wastes:

Description/Dangerous Waste #	EHW/DW	Quantity (Month/Batch)
Spent lacquer thinner/F001, F003	EHW/DW	~5-10 gal/month
D001	depending on batch	

C. Are there any wastes which were reported on his latest Annual Report which the generator is no longer generating? — X

If "yes," provide the waste description and Dangerous Waste # as they appeared on the latest Annual Report:

Comments

11. ADDITIONAL REPORTS.

	Yes	No
a. Does the department require the generator to submit any additional reports as provided under WAC -220(3)?		X
If "Yes," were these reports accurate and submitted in a timely manner? (Specify what additional reports are required and note any deficiencies under Comments, below.)		
b. If the generator sends labpacks off-site, does he keep an itemized listing of the chemicals, their concentrations and quantities per labpack for purposes of preparing annual reports and in case of emergency during shipment? (WAC -161(6))	N/A	

Comments

12. GENERATOR ACCUMULATION (WAC -200).

This portion of the generator checklist/questionnaire is only applicable to generators who accumulate dangerous waste on-site as allowed for in WAC -200. To determine whether or not this portion is applicable, first complete item A.,

below. If, after completing item A., it is determined that the generator does accumulate dangerous waste on-site, then complete all of the questions under this Section 12. Generator Accumulation. If, after completing item A., it is determined that the generator does not accumulate dangerous wastes, then do not complete the remaining questions under this section 12. Generator Accumulation. (Note: Under certain circumstances, WAC -200(1)(e) allows an accumulating generator who keeps his waste less than ten days to be exempt from all or part of sections WAC -330 through -360. If this is the case for this generator, then complete only item A. and the remaining applicable items of this section 12. Generator Accumulation.)

	Yes	No
A. Determining Whether Or Not The Generator's Accumulation Is Subject To WAC -200.		
a. If the answers to both of the following questions are "Yes," then do not complete the remaining generator accumulation questions (they will be asked later under Part IV: Facilities). If either or both questions are answered "No," then continue the remaining questions in this item A.		
i. Does the generator operate an on-site dangerous waste management facility?		X
ii. Are all of the generator's dangerous wastes placed in and managed (including stored, treated or disposed) at his on-site facility as soon as they become subject to regulation?		X
b. If the answer to any of the following questions is "Yes," then the generator is subject to the generator accumulation standards of WAC -200(1)(e), and the remaining items of this section 12. Generator Accumulation must be completed. If the answer to all of the following questions is "No," then the generator is not subject to WAC -200(1)(e).		
i. Does the generator ever generate more than 2,200 lbs. (1,000 kg) of dangerous waste in a month or batch, or ever accumulate more than 2,200 lbs. (1,000 kg) on-site at any time?	X	
ii. Does the generator ever generate (per month or per batch) or accumulate on-site at anytime more than 2.2 lbs. (1.0 kg) of EHW discarded chemical products (WAC -081)?		X
iii. Does the generator ever hold dangerous wastes on-site for more than ten days after the date the waste quantity first exceeds the applicable quantity exclusion limit?	X	

iv. Even though the generator removes all wastes in less than ten days, has he been required by WDOE to comply with some or all of WAC -330 through -360?

Yes	No
	X

Comments _____

B. Ninety-Day* Accumulation Limit.

Yes	No

* The time limit is one hundred eighty days for moderate risk wastes held in containers or tanks as allowed by WAC -170(4)(b). One hundred eighty days is also the time limit for persons who generate less than 2200 pounds per month of dangerous waste.

a. Are all wastes:

	Yes	No
i. shipped to an off-site TSD, or		X
ii. placed in an on-site permitted storage area, or		X
iii. recycled on-site, or		X
iv. treated in containers or tanks, with regional approval		X
within ninety days* or less (WAC -200(1)(a))?		

b. In those cases where wastes were not sent to a facility within ninety days*, did WDOE grant extensions (maximum thirty days) as allowed by WAC -200(1)(a)? — X

c. How does the generator determine when the ninety-day* accumulation period begins:

i. When the waste is first generated (WAC -200(2)(a))? — generate unaware of reg.

ii. If he is a small quantity generator, when his aggregated quantity first exceeds the exclusion limit (WAC -200(2)(b))? —

iii. At satellite areas, when each 55 gallon container of dangerous waste or one quart of acutely hazardous waste is full (WAC -200(2)(c))? —

Comments drying sludges w/o approval; exceeded 90-day storage limit

C. Personnel Training (WAC -330).

	Yes	No
a. Does the generator have a written personnel training plan, kept at the generator's site (WAC -330(2))?		X
b. Does the personnel training plan include the following documents and records:		
i. For each position related to the handling of dangerous waste on-site, the job title, name of employee filling each job, and the job description, including requisite skills, education, qualifications and duties for each position (WAC -330(2)(a))?		X
ii. Written description of type and amount of introductory and continuing training needed for each position (WAC -330(2)(b))?		X
iii. Records documenting that employees have received and completed the necessary training (WAC -330(2)(c))?		X
c. Are training records retained for at least three years after an employee last worked for the generator, or until the generator closes his site, whichever occurs first (WAC -330(3))? (Note: Records may have been transferred within the company to follow an employee. This is permissible, but some record of the employee's transfer and continued employment should be documented.)	N/A	
d. Does the generator provide a training program that teaches personnel to perform their duties in ways that ensures the generator's compliance with WAC 173-303 (WAC -330(1))?		X
e. Does the training program involve:		
Classroom instruction?		
On-the-job training?		
f. Is the training program directed by a person knowledgeable in dangerous waste handling practices (WAC -330(1)(a))?	N/A	

		Yes	No
g.	Do the generator's employees participate in an annual review of the training provided in the training program (WAC -330(1)(b))?		X
h.	Is the training program successfully completed by each employee within six months of being employed at the generator's site, or of being assigned to a new position, whichever is later (WAC -330(1)(c))?		
i.	Are new employees supervised until they complete the training program (WAC -330(1)(c))?		X
j.	Does the training program:		
	i. Include training relevant to the positions in which personnel are employed (WAC -330(1)(a))?	N/A	
	ii. Instruct personnel on contingency plan implementation (WAC -330(1))?		
	iii. Familiarize personnel with emergency equipment and systems, and emergency procedures (WAC -330(1)(d))?		
k.	Where applicable, does the training program include the following parameters (WAC -330(1)(d))?		
	i. Procedures for using, inspecting, repairing and replacing emergency and monitoring equipment.	N/A	
	ii. Key parameters for automatic waste feed cut-off systems.		
	iii. Communications or alarm systems.		
	iv. Response to fires or explosions.		
	v. Response to ground water contamination.		
	vi. Shutdown of operations.		

Comments: generator's status uncertain — has overaccumulated waste; may be a 220-2200 # generator — unaware of training req.

D. Preparedness and Prevention (WAC -340).

	Yes	No
a. Is each container and tank used for accumulation labeled or marked with the words "Dangerous Waste" or "Hazardous Waste," and with a label or sign which identifies for employees, emergency response personnel and the public the major risk(s) associated with the waste in the container or tank (WAC -200(1)(d))?	—	X
b. Unless it can be demonstrated that the equipment is not necessary (specify why not in the Comments, below), or the equipment is not required because wastes are held less than ten days (as allowed by WAC -200(1)(e)), are the following equipment present, tested regularly, and kept in good working order:		
i. Internal communications or alarm system capable of providing immediate emergency instructions (WAC -340(1)(a))?		
Present?	—	—
Tested regularly?	—	—
Good working order?	—	—
ii. A device capable of summoning police or fire departments or emergency response teams (e.g., telephone, two-way radio) (WAC -340(1)(b))?		
Present?	✓	—
Tested regularly?	✓	—
Good working order?	✓	—
iii. Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment (WAC -340(1)(c))?		
Present?	—	✓
Tested regularly?	—	✓
Good working order?	—	✓
iv. Water at adequate volume/pressure to supply hose streams, foam equipment, sprinklers or spray systems (WAC -340(1)(d))?		
Present?	✓	—
Tested regularly?	✓	—
Good working order?	✓	—
c. Whenever dangerous waste is being handled, do all personnel involved have immediate access to an internal alarm or emergency communication system, either directly or through visual or voice contact with another employee (WAC -340(2)(a))?	✓	—

Phone avail. — voice comm. reasonable

		Yes	No
d.	If there is ever just one employee present on the premises, does he have immediate access to a device (e.g., telephone, two-way radio) capable of summoning external emergency help (WAC -340(2)(b))?	N/A	
e.	Is adequate aisle space provided to allow for inspections and unobstructed movement of personnel, fire and spill control equipment and decontamination equipment during an emergency (WAC -340(3))?	✓	
f.	Do the hazards posed by the wastes handled by the generator require arrangements with local authorities? (If "Yes," complete the remaining questions, g. through k, below. If "No," document under Comments, below, why the hazards are not such as to warrant these arrangements.)		✓
g.	Has the generator arranged to familiarize police, fire departments and emergency response teams with: the layout of his site; properties of wastes handled and associated hazards; places where personnel would normally be working; entrances to and roads on the site; and possible evacuation routes (WAC -340(4)(a))?		✓
h.	Has the generator arranged to familiarize local hospitals with the properties of dangerous wastes handled and the types of injuries or illnesses which could result from fires, explosions or waste releases (WAC -340(4)(b))?		✓
i.	Does the generator have agreements with state emergency response teams, emergency response contractors and equipment suppliers (WAC -340(4)(c))?		✓
j.	Where more than one party might respond to an emergency, does the generator have agreements designating primary emergency authority and support services to be provided (WAC -340(4)(d))?		✓
k.	Has the generator documented all instances where state or local authorities have declined to enter into the above arrangements (WAC -340(5))?	N/A	

Comments _____

E. Contingency Plan, Emergency Procedures and Emergencies (WAC -350 and -360)

	Yes	No
a. Does the generator have a contingency plan designed to lessen the potential impacts of a fire, explosion or unplanned sudden or nonsudden release of dangerous wastes or dangerous waste constituents to air, soil, surface or ground water (WAC -350(1))?		✓
b. Does the generator have a Spill Prevention Control and Countermeasures (SPCC) plan amended to include a contingency plan (WAC -350(2))?		✓
c. Are copies of the contingency plan and revisions to it:		
i. Maintained at the generator's site (WAC -350(4)(a))?		✓
ii. Submitted to all local police departments, fire departments, and hospitals, and state and local emergency response teams that may provide emergency services (WAC -350(4)(b))?		✓
d. Is the contingency plan amended whenever:		
i. Applicable regulations are revised (WAC -350(5)(a))?	N/A	
ii. The plan fails in an emergency (WAC -350(5)(b))?		
iii. The generator's site changes in a way that increases the potential for fires, explosions, or releases, or that changes the necessary emergency responses (WAC -350(5)(c))?		
iv. The list of emergency coordinators changes (WAC -350(5)(d))?		
v. The list of emergency equipment changes (WAC -350(5)(e))?		
e. Does the contingency plan include:	No plan	
i. A description of the actions personnel must take in the event of an emergency circumstance (WAC -350(3)(a))?		
ii. A description of the arrangements agreed to by local police and fire departments, hospitals, contractors, and state and local response teams to coordinate emergency services (WAC -350(3)(c))?		

	Yes	No
iii. A current list of emergency coordinators, including names, addresses and twenty-four hour phone numbers (WAC -350(3)(d))?	no plan	
iv. If more than one emergency coordinator is listed, identification of a primary emergency coordinator, with the others listed in the order that they will assume responsibility as alternates (WAC -350(3)(d))?		
v. A list of all emergency equipment kept on the site, including the location, physical description and brief outline of the capability of each piece of equipment (WAC -350(3)(e))?		
vi. An evacuation plan (where evacuation could be necessary) for personnel, which describes signals to begin evacuation, evacuation routes, and alternate routes (WAC -350(3)(f))?		
f. Do the information and elements described in the contingency plan assure that the generator has taken adequate precautions for reacting to emergency circumstances? (If "No," specify what inadequacies exist in the Comments section, below.)		
g. Is an emergency coordinator on the premises at all times or available on-call at all times (WAC -360(1))?	no designated EMC	X
h. Is the emergency coordinator (and his alternates, if any) capable in the following areas (WAC -360(1)):	see above, N/A	
i. Familiar with all aspects of the contingency plan?		
ii. Familiar with all operations and activities on the generator's site?		
iii. Familiar with the location and properties of all wastes handled?		
iv. Familiar with the location of all records kept on-site?		
v. Familiar with the generator's site layout?		
vi. Has the authority to commit the resources needed to carry out the contingency plan?		

	Yes	No
i. Are the following procedures implemented (or, to be implemented) in the event of an emergency:		
i. Does the emergency coordinator or his designee (EC/D) immediately activate internal alarms or communication systems to notify all personnel (WAC -360(2)(a)(i)) and notify appropriate state or local agencies with designated response roles if help is needed (WAC -360(2)(a)(ii))?	N/A	
ii. Does the EC/D immediately identify the character, exact source, amount and areal extent of any released materials (WAC -360(2)(b))?		
iii. Concurrently, does the EC/D assess possible hazards to human health and the environment (including direct, indirect, immediate and long-term effects) that may result from the emergency (WAC -360(2)(c))?		
iv. If the EC/D determines that the emergency could threaten human health or the environment outside the facility, does he immediately notify and provide an assessment report (which must include the information described under v., below) to:		
1. The appropriate local authorities if evacuation of local areas may be advisable; and remain available to help appropriate officials decide if local areas should be evacuated (WAC -360(2)(d)(i))?		
2. WDOE and either the government official designated as on-the-scene coordinator, or the National Response Center (WAC -360(2)(d)(ii)?		
v. Does the assessment report (covered under iv., above) include:		
1. Name and telephone number of reporter (WAC -360(2)(e)(i))?		
2. Name and address of the generator's site (WAC -360(2)(e)(ii))?		
3. Time and type of emergency (e.g., fire, release) (WAC -360(2)(e)(iii))?		
4. Name and quantity of materials involved (WAC -360(2)(e)(iv))?		

	Yes	No
5. The extent of injuries, if any (WAC -360(2)(e)(v))?	___	___
6. Possible hazards to human health and the environment off the site (WAC -360(2)(e)(vi))?	___	___
vi. During an emergency, does the EC/D take all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other dangerous wastes (e.g., stopping processes or operations, collecting and containing releases, removing or isolating containers, etc.) (WAC -360(2)(f))?	___	___
vii. If operations stop in response to an emergency, does the EC/D monitor for leaks, pressure buildup, gas generation or ruptures wherever appropriate (WAC -360(2)(g))?	___	___
viii. Immediately after an emergency, does the EC/D provide for treating, storing or disposing wastes and materials resulting from the emergency (WAC -360(2)(h))?	___	___
ix. Does the EC/D ensure, in the affected areas on the site, that:		
1. No waste that may be incompatible with the released material is treated, stored or disposed until cleanup procedures are completed (WAC -360(2)(i)(i))?	___	___
2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations resume (WAC -360(2)(i)(ii))?	___	___
x. Does the generator notify WDOE, and appropriate local authorities, that his site satisfies the conditions described under ix.1. and 2., above, before operations resume in the affected areas of his site (WAC -360(2)(j))?	___	___
xi. Does the generator note in his operating record the time, date, and details of incidents requiring implementation of the contingency plan (WAC -360(2)(k))?	___	___
xii. Within fifteen days after the emergency, does the generator submit a written report of the incident to WDOE which includes:	___	___

N/A

	Yes	No
1. Name, address, and telephone number of the generator (WAC -360(2)(k)(i)) and of the site (WAC -360(2)(k)(ii))?	N/A	
2. Date, time, and type of emergency (WAC -360(2)(k)(iii))?		
3. Name and quantity of materials involved (WAC -360(2)(k)(iv))?		
4. The extent of injuries, if any (WAC -360(2)(k)(v))?		
5. An assessment of actual or potential hazards to human health or the environment, where this is applicable (WAC -360(2)(k)(vi))?		
6. Estimated quantity and disposition of recovered material that resulted from the incident (WAC -360(2)(k)(vii))?		

Comments _____

13. METHOD OF ACCUMULATION

How does the generator accumulate his dangerous wastes:

	Yes	No
A. In containers? (Complete Section 14., below.)	✓	
B. In tanks? (Complete Section 15., below.)		✓

C. In piles (Note: This option is only available for moderate risk wastes)? (Complete Section 16., below.) ___

14. ADDITIONAL REQUIREMENTS FOR GENERATORS ACCUMULATING WASTES IN CONTAINERS.

	Yes	No
A. Are all containers in good condition, and are dangerous wastes transferred to good containers or otherwise managed if the original container leaks (WAC -630(2))?	✓	
B. Are all containers marked with the date accumulation began (WAC -200(1)(c))?		✓
C. Are all containers made of or lined with materials that will not react or are otherwise compatible with the wastes being accumulated (WAC -630(4))? (If necessary, request and obtain documentation to demonstrate waste/container compatibility.)	✓	
D. Are all containers used for accumulating dangerous wastes:		
a. Always closed except when wastes are added or removed (WAC -630(5)(a))?		✓
b. Not opened, handled, or stored (e.g., left in areas of heavy traffic where collisions could occur, or personnel or the public could intentionally or accidentally damage the containers) in ways that would rupture the containers or cause them to leak (WAC -630(5)(b))?	✓	
c. Stored in a manner which allows the generator to inspect each container for leaks, ruptures or deterioration?	✓	
E. Does the generator inspect at least weekly the areas where containers are used to accumulate wastes, looking for leaking containers and for deterioration from corrosion and other factors (WAC -630(6))?		✓
F. Does the generator keep records of weekly inspections of his container storage area which describe (WAC -630(6)):		
a. The dates of inspection and name(s) of inspector(s)?		✓
b. Observations of any leaks or container deterioration detected?		✓
c. Measures taken to correct leaks or deteriorated containers (if any)?		✓

G. Are containers used for accumulating ignitable or reactive dangerous waste? — X

If "Yes":

a. Are containers holding reactive wastes (if any) capable of detonation or explosion, or that are forbidden explosives or Class A or B explosives (49 CFR 173.51, 53 or 88) stored equivalent to UFC's "American Table of Distances for Storage of Explosives," Table 77-201 (WAC -630(8)(a))? NA

b. Are all other ignitable or reactive waste container storage designed, operated and maintained equivalent to the Uniform Fire Code, state or local fire codes, or NFPA Pamphlet #30, "Flammable and Combustible Liquids Code" (WAC -630(8)(b))?

c. Are those areas where ignitable or reactive wastes are accumulated inspected at least yearly by a professional person familiar with the Uniform Fire Code, or by a federal, state, or local fire marshal (WAC -630(8)(b), -395(1)(d))?

d. Does the generator keep records of these fire inspections which describe:

i. The dates of inspection and name(s) of inspector(s)?

ii. Observations of any unsafe or improper ignitable or reactive waste handling?

iii. Measures taken to correct any unsafe or improper ignitable or reactive waste handling?

H. Are incompatible wastes or incompatible wastes and materials accumulated or held on-site (e.g., corrosives with ignitables, chlorinateds with ignitables)? — X

If "Yes":

a. Describe which wastes or wastes and materials are incompatible:

_____

_____

_____

_____

_____

	Yes	No
b. Does the generator assure that dangerous wastes are not put in containers which previously held incompatible wastes or materials unless the container has been washed (WAC -630(9)(b))?	N/A	
c. Are containers holding waste that is incompatible with wastes or materials stored nearby separated or protected from such wastes or materials by a dike, berm, wall or other device, and are containment systems (if any) for incompatible wastes separate (WAC -630(9)(c))?		
d. Are incompatible wastes, or incompatible wastes and materials put in the same container?		
Describe which incompatible wastes or wastes and materials are involved:		
e. If incompatible wastes or wastes and materials are mixed or commingled, are these activities conducted so as <u>not</u> to (WAC -630(9)(a)):		
i. Generate extreme heat, pressure, fire, explosion or violent reaction (WAC -395(1)(b)(i))?		
ii. Produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health or the environment (WAC -395(1)(b)(ii))?		
iii. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions (WAC -395(1)(b)(iii))?		
iv. Damage the structural integrity of the facility or containers (WAC -395(1)(b)(iv))?		
v. Otherwise threaten human health or the environment (WAC -395(1)(b)(v))?		

Note: If the generator is treating wastes as they are placed in his containers (other than simple mixing with an absorbent), he may be operating a dangerous waste treatment facility.

I. SECONDARY CONTAINMENT (WAC -200(7))

	Yes	No
For new container accumulation areas constructed after September 30, 1986 or for persons who have been required to do so by WDOE on a case-by-case basis, have the following containment standards been met?		
i. Is the containment system capable of collecting and holding spills and leaks? (WAC -630(7)(a))		X
ii. If the storage area is uncovered, is the containment system capable of holding the additional volume that would result from the precipitation of a maximum 25 year storm of 24 hours duration? (WAC -630(7)(a))		X
iii. Does the containment system have an underlying base which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills and accumulated rainfall until the collected material is detected and removed? (WAC -630(7)(a))		X
iv. Is the base sloped or the containment system otherwise designed and operated to drain and remove liquids from leaks, spills, or precipitation, unless the containers are elevated or otherwise protected from contact with accumulated liquids? (WAC -630(7)(a)(i))		X
v. Is the system designed for positive drainage control (such as a locked drainage valve) to prevent release of contaminated liquids and so that contaminated precipitation can be drained promptly for convenience of operation? (WAC -630(7)(a)(ii))		X
vi. Is spilled or leaked waste and accumulated precipitation removed in as timely a manner as necessary to prevent overflow? (WAC -630(7)(a)(ii))		X
vii. Does the containment system have sufficient capacity to contain 10 percent of the volume of all containers or the volume of the largest container (holding free liquids or dioxin wastes), whichever is greater? (WAC -630(7)(a)(iii))		X
viii. Is the run-on into the containment system prevented? (WAC -630(7)(b))		X
If no, has WDOE waived this requirement? (WAC -630(7)(b))		
ix. Are EHW in containers protected from the elements by means of a building or other protective covering that otherwise allows adequate inspection? (WAC -630(7)(d))		

x. For storage areas that store containers holding only wastes that do not contain free liquids, do not exhibit either the characteristic of ignitability or reactivity, and are not listed as F020, F021, F022, F023, F026 or F027, instead of the containment requirements described above, only the following two requirements need apply (WAC -630(7)(c)):

	Yes	No
o Is the storage area sloped or otherwise designed and operated to drain and remove liquids resulting from precipitation; or		X
o Are the containers elevated or otherwise protected from contact with accumulated liquids?		X

Comments _____

15. ADDITIONAL REQUIREMENTS FOR GENERATORS ACCUMULATING WASTES IN TANKS.

	Yes	No
A. Does the generator maintain a system of records which assure that no wastes held in his tanks are being accumulated for more than ninety days (one hundred eighty days for moderate risk wastes or generators of less than 2200 pounds per month of dangerous wastes)?	N/A	
B. Are wastes or other materials which are incompatible with the material of construction of the tanks ever placed in the tanks?		
If "Yes," is the tank protected from corrosion, erosion or abrasion through use of:		
a. An inner liner, free of leaks, cracks, holes or other deterioration, which is compatible with the waste or materials (WAC -640(3)(a)(i)?		

	Yes	No
b. Alternative protection (e.g., cathodic protection, corrosion inhibitors) (WAC -640(3)(a)(ii))?	N/A	
C. Does the generator use appropriate measures to prevent overfilling and overtopping, including:		
a. Controls to prevent overfilling (e.g., waste feed cut-off systems, by-pass to a standby tank) (WAC -640(3)(b)(i))?		
b. For uncovered tanks, maintenance of at least two feet of freeboard (WAC -200 (1)(b), -640(3)(b)(ii))?		
D. Does the generator inspect at least <u>once each operating day</u>:		
a. Overfilling control equipment to ensure it is in good working order (WAC -640(4)(a)(i))?		
b. Data gathered from monitoring equipment where present, to ensure each tank is operated according to its design (WAC -640(4)(a)(ii))?		
c. For uncovered tanks, the level of waste in each tank to ensure the freeboard is at least two feet (WAC -640(4)(a)(iii))?		
E. Does the generator inspect at least <u>weekly</u>:		
a. The construction materials of the above ground portions of each tank to detect corrosion, erosion or leaking of the tank, fixtures and seams (WAC -640(4)(a)(iv))?		
b. The area immediately surrounding each tank to detect obvious signs of leakage (e.g., wet spots, dead vegetation) WAC -640(4)(a)(v))?		
F. Does the generator have a written schedule for inspecting his tanks which includes records describing (WAC -640(4)(b)):		
a. The dates of inspections and name(s) of inspector(s)?		
b. Observations of any conditions which could cause the tank to leak or fail as specified in the written schedule?		
c. Measures taken to correct or prevent any hazardous conditions identified during the inspection?		
G. Does the generator have records describing dates that spills or leaks (if any) from his tanks occurred and measures taken to clean up and decontaminate the spills or leaks (WAC -640(4)(c))? (Note: The measures to be		

N/A

taken to respond to spills or leaks should be described in his contingency plan.)

	Yes	No
H. Does the generator have records showing that at least once each operating day he:		
a. Gathered data from monitoring equipment to ensure the tank was operated according to its design (WAC -640(4)(a)(ii))?	___	___
b. Checked the level of waste in uncovered tanks (if any) to ensure that a minimum freeboard of two feet was maintained (WAC -640(4)(a)(iii), -200(1)(b))?	___	___
I. Have any tanks been closed and removed from dangerous waste service since the last inspection?	___	___
If "Yes":		
a. Have all dangerous wastes and residues been removed from the tanks, discharge control equipment, containment systems and bases (where present) and discharge confinement structures (WAC -640(5))?	___	___
b. Have all tanks, bases, liners and soils containing or contaminated with dangerous wastes or residues been removed or decontaminated (WAC -640(5))?	___	___
J. Are ignitable or reactive wastes placed in tanks?	___	___
If "Yes":		
a. Is the tank only used for emergencies (WAC -640(6)(a)(iii))?	___	___
b. Is the waste stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react (WAC -640(6)(a)(ii))?	___	___
c. Is the waste treated, rendered or mixed before or immediately after placement in the tank so that (WAC -640(6)(a)(i)):		
i. The resulting mixture in the tank is no longer ignitable or reactive under WAC -090?	___	___
ii. And, the mixing or commingling of the waste does not: generate extreme heat, pressure, fire, explosion or violent reaction; produce uncontrolled toxic mists, fumes, dusts or gases that threaten human health or the environment; produce uncontrolled flammable fumes or gases that pose a risk of fire or		

explosion; damage the structural integrity of the tank or equipment; otherwise threaten human health or the environment (WAC -395(1)(b))? ___ ___

Note: If the generator is treating wastes as they are placed in his tanks, he may be operating a dangerous waste treatment facility.

d. Are the tanks located in a manner equivalent to the NFPA's buffer zone requirements for tanks (Tables 2-1 through 2-6 of the NFPA-30 "Flammable and Combustible Liquids Code - 1981"), or as required by state and local fire codes if these are more stringent (WAC -640(6)(b))? ___ ___

e. At least yearly, is the tank storage area inspected by a professional person knowledgeable in the Uniform Fire Code, or by a local, state or federal fire marshal (WAC -640(6)(b), - 395(1)(d))? ___ ___

f. Does the generator keep records of this annual inspection describing:

i. The dates of inspection and name(s) of inspector(s)? ___ ___

ii. Observations of any unsafe or improper ignitable or reactive waste handling? ___ ___

iii. Measures taken to correct any unsafe or improper ignitable or reactive waste handling? ___ ___

K. Are incompatible wastes or incompatible wastes and materials placed in the same tank? ___ ___

If "Yes":

a. Describe which wastes or wastes and materials are incompatible:

_____

_____

_____

_____

_____

b. If incompatible wastes or wastes and materials are placed in the same tank, or if dangerous waste is placed in an unwashed tank which previously held

incompatible waste or materials, are these activities conducted so as not to (WAC -640(7)):

i. Generate extreme heat, pressure, fire, explosion or violent reaction (WAC -395(1)(b)(i))? ___ ___

ii. Produce uncontrolled toxic mists, fumes, dusts or gases that threaten human health or the environment (WAC -395(1)(b)(ii))? ___ ___

iii. Produce uncontrolled flammable fumes or gases that pose a risk of fire or explosion (WAC -395(1)(b)(iii)? ___ ___

iv. Damage the structural integrity of the tank or equipment (WAC -395(1)(b)(iv))? ___ ___

v. Otherwise threaten human health or the environment (WAC -395(1)(b)(v))? ___ ___

Note: If the generator is treating incompatible wastes as they are placed in his tanks, he may be operating a dangerous waste treatment facility.

Comments _____

16. ADDITIONAL REQUIREMENTS FOR GENERATORS ACCUMULATING WASTES IN PILES. **Yes** **No**

Note: This section is applicable to only those moderate risk wastes a generator may be accumulating.

A. Does the generator keep records of any leaks of liquids into the leak detection system that have occurred, describing (WAC -660(3)(b)):

a. Dates and times leaks were detected? N/A

b. Measures taken to remove accumulated liquids and stop leakage that is occurring?

c. Certification by a qualified engineer that the leak has been stopped?

B. Does the generator keep records of any notifications sent to WDOE that there have been leaks into the leak detection system (if any?)

C. [Remainder to be added at a later date.]

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

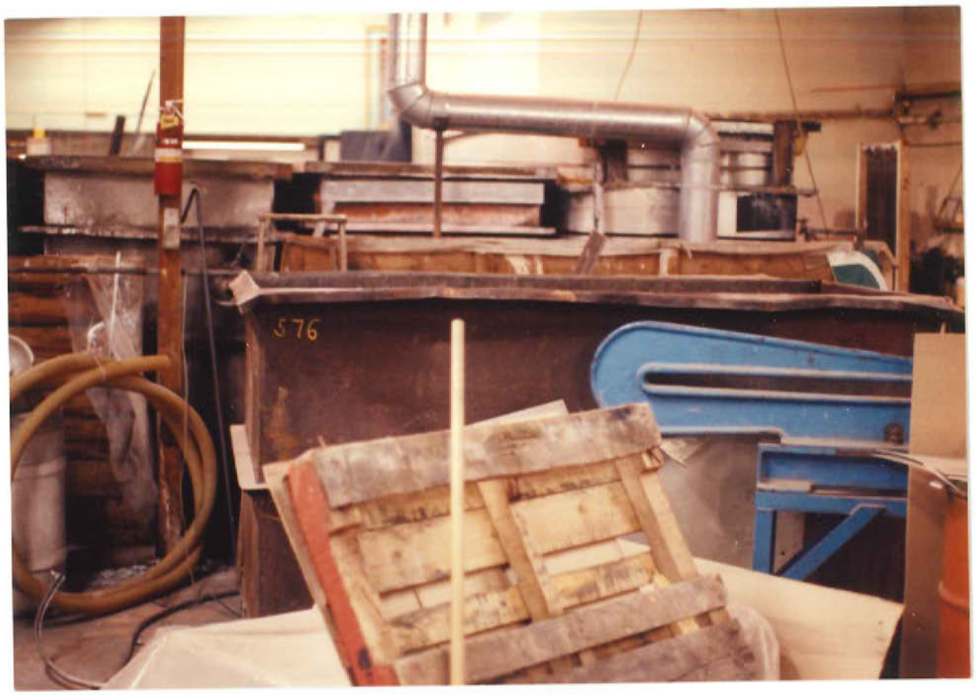

Photo Number: 1 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Chrome coating line
City/County: Spokane State: WA
Date: 10/17/90 Time: 1450 Weather: Cloudy, cool

Photo Number: 2 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Chrome coating line
City/County: Spokane State: WA
Date: 10/17/90 Time: 1452 Weather: Cloudy, cool

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 3 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; some product, some unknown
City/County: Spokane State: WA
Date: 10/17/90 Time: 1505 Weather: Cloudy, cool

Photo Number: 4 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; chrome sludge
City/County: Spokane State: WA
Date: 10/17/90 Time: 1510 Weather: Cloudy, cool

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 5 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; chrome sludge being dried
City/County: Spokane State: WA
Date: 10/17/90 Time: 1515 Weather: Cloudy, cool

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 1 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Chrome coating line
City/County: Spokane State: WA
Date: 10/17/90 Time: 1450 Weather: Cloudy, cool

Photo Number: 2 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Chrome coating line
City/County: Spokane State: WA
Date: 10/17/90 Time: 1452 Weather: Cloudy, cool

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 3 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; some product, some unknown
City/County: Spokane State: WA
Date: 10/17/90 Time: 1505 Weather: Cloudy, cool

Photo Number: 4 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; chrome sludge
City/County: Spokane State: WA
Date: 10/17/90 Time: 1510 Weather: Cloudy, cool

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 5 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drum storage area; chrome sludge being dried
City/County: Spokane State: WA
Date: 10/17/90 Time: 1515 Weather: Cloudy, cool

MEMORANDUM

TO: Claude Sappington, Regional Director

THROUGH: Jim Malm, Solid & Hazardous Waste Section Head

FROM: Bruce Howard

RE: Pacemaker Industries Investigation

DATE: October 19, 1990

Synopsis of complaint:

In July of this year, Ecology received a complaint alleging that Pacemaker Industries had buried ten to fifteen drums of hazardous waste on property adjoining the firm's. This property belongs to Burlington Northern Railroad. Ecology requested Olympus Environmental to investigate the site.

On July 18, 1990 Olympus personnel, with Burlington Northern's approval, excavated a series of trenches in an attempt to locate the alleged drums. The complainant was on-site during much of this time. No drums were found. As a result of the continued allegations of the complainant, and additional information received by the Department, Ecology requested Olympus to conduct a geophysical survey of the site. Olympus hired Williams & Associates to perform ground penetrating radar and electromagnetic scanning. The firm conducted this survey on September 5, 1990.

Williams & Associate issued a report in September describing their methods and results. Their survey indicated three areas with anomalies that indicated possible buried items. Ecology then requested Olympus to return to the site for additional excavation. Site work was delayed due to access difficulties with Burlington Northern's headquarters; however, Olympus returned to conduct further site work on October 17, 1990.

I met Olympus at 8 a.m. on-site, and reviewed the planned work briefly with Dick Shabro, Olympus' representative. I also

informed Pacemaker Industries that we would be conducting site work that day. Olympus began excavation of the area marked #4 on Williams & Associates' September report. The report indicated a "highly conductive zone approximately ten feet across," and "buried metallic objects at a depth of 2 to 4 feet." The area had been marked on the surface with paint during the September fieldwork. In addition, the area had been measured and staked at that time. The site had not been disturbed in any way since the September fieldwork was conducted.

At area #4, an area approximately 25 by 25 feet was excavated to an average depth of nine feet or more. The only metal objects found were two old steel beverage cans, flattened. Olympus then moved to excavate the area marked #8, where the report indicated a possible "flat metallic object." An area approximately 4 by 10 feet was excavated to a depth of app. 2.5 feet. The soil appeared to be compacted in its original, undisturbed state at that site. A single piece of cut steel was found near the surface in this excavation. Area #6 was then excavated, where the report suggested "a possible drum or pipe." The area appeared to have been excavated at some previous time; it was loose and lacked any defined horizons to a depth of approximately 3 feet. An area approximately 6 by 12 feet was excavated, which appeared to coincide with a previous excavation or scraping. A range of metal objects were discovered, such as a length of chain, cut steel pieces, and an empty aerosol can. There was absolutely nothing present to indicated buried hazardous waste or containers.

I then asked Olympus to extend the excavation around #4 to the east and west as a final check. The final excavation was approximately 25 by 40 feet to an average depth of nine feet. The excavation cut across three trenches previously excavated in July. There was no evidence of any kind to indicate buried wastes or containers.

Just before noon, Olympus took a break for lunch. I was interviewed briefly by Randy Shaw of Q6 News. He, a cameraman, and Steve Rupp, one of the initial complainants, had been observing the site work all morning. After the interview, they left the site. I stayed on site during Olympus' lunch; when they returned, I instructed them to fill and grade the excavations, and requested a written final report of the fieldwork. At 2:25, Olympus left the site.

After reviewing evidence presented in the various stages of the complaint, along with the results of the fieldwork, I recommend that Ecology close the investigation on the allegation of buried

drums on the Burlington Northern property. There appears to be no physical evidence whatsoever of any violations of RCW 70.105 or of WAC 173-303.

I will finalize a report and recommendation regarding Pacemaker's ongoing waste management practices within the next ten days.

Bruce,

I concur with your recommendation.

Claude 10-23-90

2538
45
SPOKANE

Tidyman's

TIDYMAN'S NO. 16
N.6401 CEDAR
SPOKANE, WA 99208
328-5075

833509

LAB USE
13895

ND

LAST NAME INITIAL: E

PLEASE PRINT
LAST NAME FIRST NAME
DEPT. OF ECOLOGY – BRUCE H

ADDRESS N 4601 MONROE

CITY SPO STATE WA ZIP 99205

DATE 10/29 PHONE NUMBER 456-6107

FILM TYPE
- [x] Color Prints
- [ ] Slides or Movies
- [ ] Black & Wh...

FILM SIZE
- [x] 35mm
- [ ] Disc

NO. OF EXP.
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PRICE

2.49

833509 3182538

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 1 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation; geophys. survey markers
City/County: Spokane State: WA
Date: 10/17/90 Time: 8:15 a.m. Weather:

Photo Number: 2 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation; beginning of excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 8:20 a.m. Weather:

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 3 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 8:45 a.m. Weather: _____

Photo Number: 4 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 8:45 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 5 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 9:00 a.m. Weather: _____

Photo Number: 6 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area of excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 9:00 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 7 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Excavated material
City/County: Spokane State: WA
Date: 10/17/90 Time: 10:00 a.m. Weather: _____

Photo Number: 8 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Area marked to indicate possible metals underground
City/County: Spokane State: WA
Date: 10/17/90 Time: 10:15 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 9 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Excavation of area in photo #8
City/County: Spokane State: WA
Date: 10/17/90 Time: 10:25 a.m. Weather: _____

Photo Number: 10 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Additional surface excavation
City/County: Spokane State: WA
Date: 10/17/90 Time: 10:30 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 11 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Metal found at surface
City/County: Spokane State: WA
Date: 10/17/90 Time: 11:00 a.m. Weather: _____

Photo Number: 12 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Excavated area
City/County: Spokane State: WA
Date: 10/17/90 Time: 11:15 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 13 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Excavated area
City/County: Spokane State: WA
Date: 10/17/90 Time: 11:30 a.m. Weather: _____

Photo Number: 14 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: Collection of metal objects found under surface
City/County: Spokane State: WA
Date: 10/17/90 Time: 11:45 a.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 15 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: View of trenches excavated
City/County: Spokane State: WA
Date: 10/17/90 Time: 12:00 p.m. Weather: _____

Photo Number: 16 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: View of trenches excavated
City/County: Spokane State: WA
Date: 10/17/90 Time: 12:10 p.m. Weather: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 17 Photographer: Bruce Howard
Location: Pacemaker Ind. Investigation
Subject: View of trenches excavated
City/County: Spokane State: WA
Date: 10/17/90 Time: 12:15 p.m. Weather: _____

OLYMPUS
ENVIRONMENTAL, INC.

OCT 24 1990

October 19,1990

Jim
Claudia

Mr. Bruce Howard
State of Washington
Department of Ecology
N. 4601 Monroe St., Suite 100
Spokane, WA. 99205

RE: Emergency Response - Spokane, WA.
W.O. #90-3021

Dear Bruce:

Enclosed is our invoice and a report of the results of our investigation of alleged buried drums at Pacemaker Industries. The site is located near Lily & Nora Streets in Spokane, WA. This invoice includes work done in September for the ground penetrating radar services.

The drums were allegedly buried on Burlington Northern Railroad property adjacent to the Pacemaker Industries property.

Olympus Environmental arrived on site at 8:00 am, October 18, 1990. After an initial site survey with Bruce Howard, our Olympus team began excavating three potentially locations where the alleged drums could be found. The above three locations were based on the results of a Geophysical survey done by Williamson and Associates, Inc. of Seattle, WA.

Site #4, Station 111N, 82W showed highly conductive zone approximately 10 foot across. GPR records indicated buried Metallic objects at a depth of 2 to 4 feet (See Attached Figure 4 of report). Our Olympus team excavated a trench 25 feet by 40 feet and 9 feet deep and no drums were found.

Site #8, Station 195N, 34E showed EM anomaly and a GPR target at a subsurface depth of 4 feet (See attached Figure 4 of report). Our Olympus team excavation a trench 4 feet by 10 feet and 3 feet deep and no alleged drums were found.

Site #6 Station showed EM anomaly approximately 3 feet in diameter. GPR records indicated subsurface debris at a depth of 1 to 2 feet (See attached Figure 4 of report). Our Olympus team excavated a trench 6 feet by 12 feet and 3 feet deep. We found scrap metal and a metal chain 3 feet long but no alleged drums.

Environmental & Hazardous Waste Services
Kent, WA Portland, OR Helena, MT

25636 74th Ave. S. • Kent, Washington 98032 • (206) 854-5094

In summary, it was determined by you and our Olympus team that no further excavation was necessary since on all three possible sites there were no alleged drums found. We backfilled in all three trenches and back bladed to a flat surface.

Olympus Environmental appreciates the opportunity to assist the Department of Ecology in their environmental concerns and looks forward to continuing in the future. The original invoice will be sent to Mr. Chuck Hines of the State of Washington.

Yours truly,

Dick Shabro

Dick Shabro
Hazardous Materials Manager

cc: Mr. Bruce Sheppard - BNRR
Mr. Chuck Hines - DOE

OLYMPUS ENVIRONMENTAL, INC.
25636 74th Avenue South
Kent, Washington 98032
(206) 854-5094

State of Washington
Department of Ecology
N. 4601 Monroe St., Suite 100
Spokane, WA. 99205

Invoice 90-01-819

DATE 10/19/90

W.O. NUMBER 90-3021

P.O. NUMBER

TERMS Net 30

DATE OF WORK	DESCRIPTION	PRICE
9/4 - 10/18	Labor:	3,873.00
	ODC Handling & Equipment:	6,633.98
	Total:	10,506.98
	Tax:	851.07
	TOTAL:	$11,358.05

PLEASE PAY BY THIS INVOICE. NO STATEMENT WILL BE SENT.

In summary, it was determined by you and our Olympus team that no further excavation was necessary since on all three possible sites there were no alleged drums found. We backfilled in all three trenches and back bladed to a flat surface.

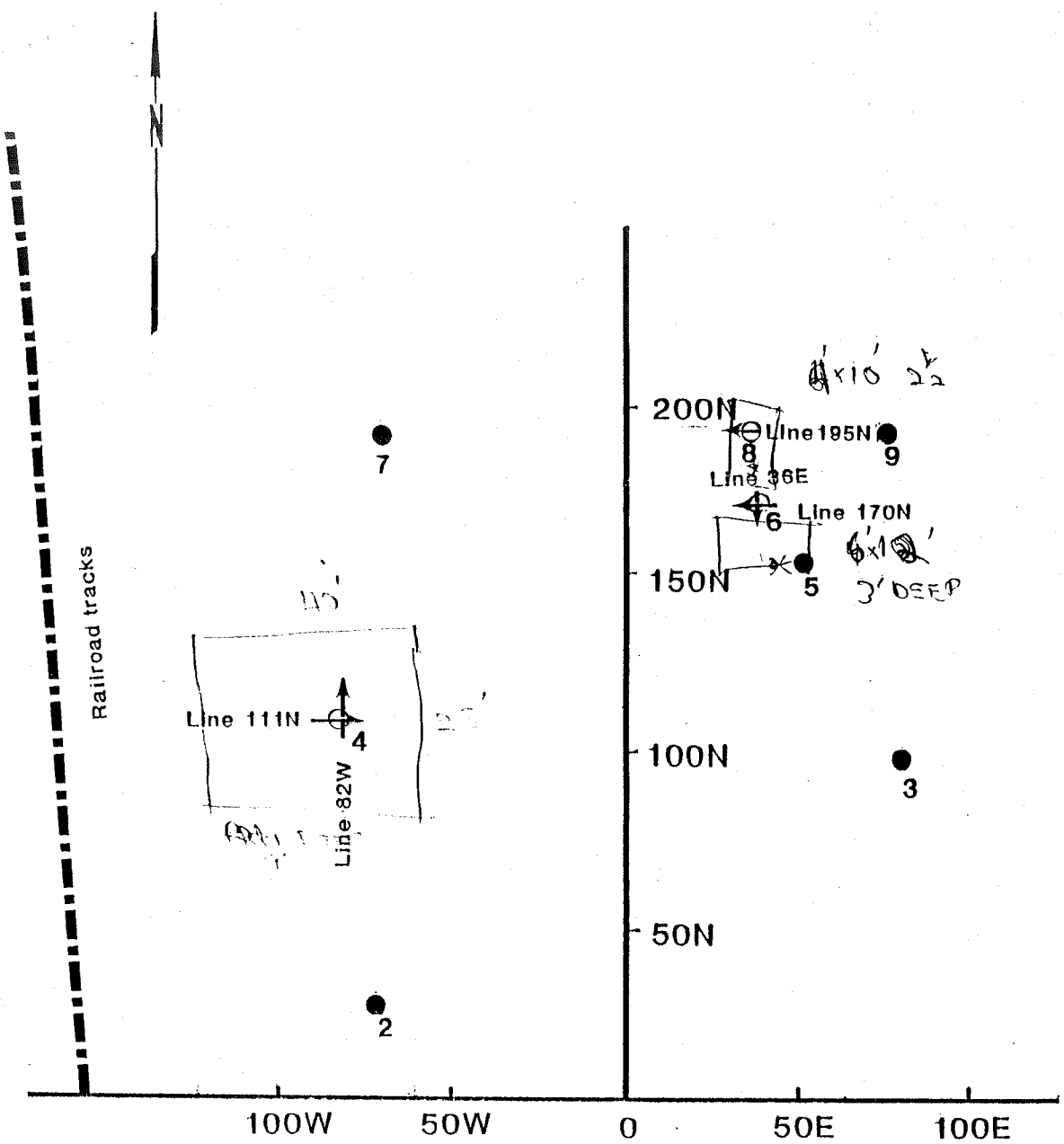
Olympus Environmental appreciates the opportunity to assist the Department of Ecology in their environmental concerns and looks forward to continuing in the future. The original invoice will be sent to Mr. Chuck Hines of the State of Washington.

Yours truly,

Dick Shabro

Dick Shabro
Hazardous Materials Manager

cc: Mr. Bruce Sheppard - BNRR
Mr. Chuck Hines - DOE



GPR and EM anomalies due to subsurface feature.
See Fig. 5 for radargrams on these transects.

EM anomalies due to surface debris.

0 50 100 150
scale feet

SITE MAP SHOWING CONDUCTIVITY AND GPR ANOMALIES.

Figure 4.

P ry W. Davidson & Associates, P
Attorneys at Law
1280 Seafirst Financial Center
Spokane, Washington 99201
Facsimile (509) 623-1660
(509) 624-4600

Barry W. Davidson

Terryl C. Black
Nancy L. Isserlis
Mark E. Lehinger
Bruce K. Medeiros

Rick A. Steltenpohl, C.P.A.
Financial Analyst

OCT 1 8 1990

October 17, 1990

Washington State
Department of Ecology
Freedom of Information Act Officer
North 4601 Monroe St.
Suite 100
Spokane, WA 99205

RE: Freedom of Information Act Request on
Pacemaker Industries, Inc.
P.O. Box 11527
Spokane, WA 99211
Owner: Robert Ramer

To Whom It May Concern:

I would like to request the following information under the "Freedom of Information Act" regarding the above-referenced company:

Access to all records, information, correspondence, memoranda, documents that in any way relate to the company known as Pacemaker Industries, Inc., and the investigations previously or currently being conducted.

I would like to review your files at your earliest convenience and possibly obtain copies. Please contact me regarding a convenient time. If I do not hear from you within the next week, I will contact your office. Thank you for your cooperation.

Very truly yours,

BARRY W. DAVIDSON & ASSOCIATES, P.S.

Terryl C. Black

TCB:bw

Phoned — they will make appt. in several weeks to look over file

OLYMPUS
ENVIRONMENTAL, INC.

SEP 27 1990

September 21, 1990

Claude Sappington
State of Washington
Department of Ecology
N. 4601 Monroe Suite 100
Spokane, WA. 99205

Re: Pacemaker Industries
W.O. #90-3021

Dear Claude:

Per our conversation on 10-19-90, I will outline below a workplan for the removal and disposal of suspected buried drums at Pacemaker Industries in Spokane, WA.

SITE HISTORY

On July 18, 1990 Olympus personnel responded to the Department of Ecology request to investigate the alleged burial of ten to fifteen drums at Pacemaker Industries in Spokane, WA. The area that the alleged drums were buried is a vacant lot adjacent to Pacemaker Industries and the vacant lot is owned by Burlington Northern Railroad. Burlington Northern Railroad granted permission to dig several trenches in an attempt to locate the alleged drums. Olympus dug a total of 551 lineal feet of trenches. No drums were found during this operation. On September 5, 1990, per the request of the State of Washington, Department of Ecology, Olympus hired Williams and Associates to perform ground penetrating radar in the suspected area. Williams and Associates discovered three areas with anomalies. (See report dated September 1990). Area #4 possible drums or tanks, area #6 possible drum or pipe, area #8 flat metallic object.

SCOPE OF WORK

Olympus will mobilize the week of October 1, 1990 with a back hoe, dump truck and emergency response van. The workplan consists of the following:

Olympus will dig and remove the suspected drums in area #4. The material in the drums will be hazcated for identification and placed in 85 gallon overpaks. The excavation will be sampled for contamination. If there is any visible contamination, it will be removed and stock piled on site for future removal and disposal at

Environmental & Hazardous Waste Services
Kent, WA Portland, OR Helena, MT

25636 74th Ave. S. • Kent, Washington 98032 • (206) 854-5094

an approved disposal site. The material will be stock piled on a liner and covered with an additional liner. If there is contamination, the excavation will remain open until analysis is complete and it is assured that the soil is free of contamination. A temporary fence will be installed around the excavation until it is backfilled and brought back to grade. Since these drums may contain unknown product, the work will be performed in personnel protection Levels and B or C.

Sincerely,

Wally Semon,
President

file.90-3021

THE RESULTS OF A GEOPHYSICAL SURVEY AT THE PACEMAKER INDUSTRY FACILITY SPOKANE, WASHINGTON

Prepared for:

Olympus Environmental
Kent, Washington

Prepared by:

Williamson and Associates, Inc.
Seattle, Washington

September, 1990

WILLIAMSON & ASSOCIATES, INC.

OCEANOGRAPHY AND MARINE GEOPHYSICS

731 N. NORTHLAKE WAY
SEATTLE, WA 98103
(206) 547-1133
FAX (206) 547-3773

SEP 19 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

Mr. Wally Semon
Olympus Environmental
25636 74th Ave. S.
Kent, Washington 98032

September 14, 1990

Enclosed are two copies of our report: THE RESULTS OF A GEOPHYSICAL SURVEY AT THE PACEMAKER INDUSTRY PROPERTY, SPOKANE, WASHINGTON.

Please call me at your convenience if you wish to discuss this report or if you require additional information or copies of the geophysical data.

We have appreciated the opportunity to work with you on this project and look forward to working together on future studies.

Sincerely,

Richard E. Sylwester
Senior Geophysicist
Williamson and Associates, Inc.

THE RESULTS OF A GEOPHYSICAL SURVEY AT THE PACEMAKER INDUSTRY FACILITY SPOKANE, WASHINGTON

Prepared for:

Olympus Environmental
Kent, Washington

Prepared by:

Williamson and Associates, Inc.
Seattle, Washington

September, 1990

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RESULTS OF A GEOPHYSICAL SURVEY AT THE PACEMAKER INDUSTRY PROPERTY SPOKANE, WASHINGTON

INTRODUCTION

This report presents the results of a geophysical survey, conducted at the Pacemaker Industry Property in Spokane, Washington. The field work was performed on August 6th,1990 under the supervision of Olympus Environmental, Kent, Washington.

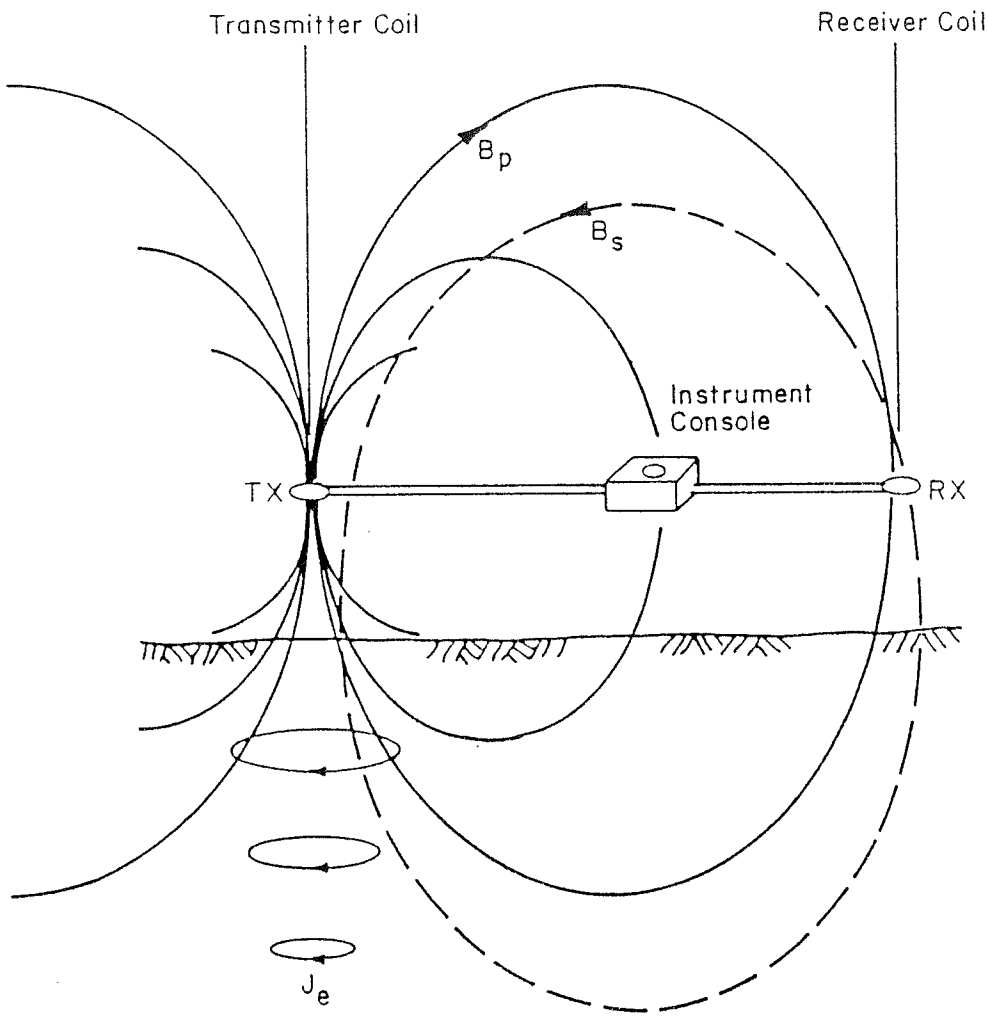
The objective of the survey was to use an electromagnetic conductivity meter and ground penetrating radar to locate drums reported to have been buried on the property.

METHODOLOGY

Electromagnetic Conductivity (EM)- Electromagnetic surveying is a surface remote sensing method used to measure terrain conductivity. Terrain conductivity is the bulk electrical conductivity of subsurface soil, rocks, and other buried artifacts. In most cases the soil and rock minerals are electrical insulators and therefore the terrain conductivity values are principally dependent upon the pore fluids contained within the soil matrix. The presence of artifacts such as pipes, metallic debris, drums and tanks produces anomalously high values of conductivity, relative to most soils, and can thus be readily located by this method.

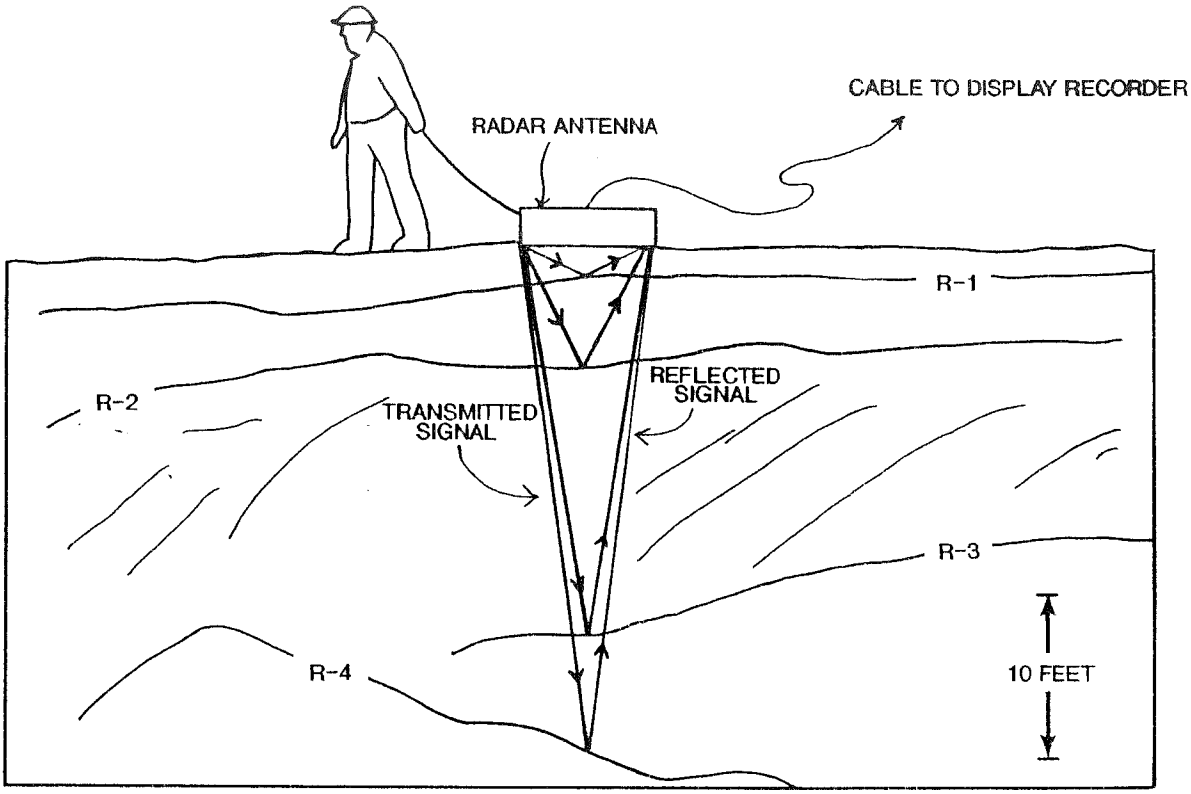
The basic principle of operation of the EM method is shown in Figure 1. A transmitter coil radiates an electromagnetic field which induces electrical currents (eddy currents) in the earth below the coil. These currents in turn generate a secondary magnetic field which is detected by the receiver coil. The processing unit then converts the measured field to conductivity which is displayed on a panel meter. The effective depth of penetration of this system is 15 feet.

Ground Penetrating Radar(GPR)-The GPR produces a continuous profile of the subsurface soils and buried features along the survey traverse (Figure 2). This is accomplished by towing a radar antenna, at a walking pace, along the desired trackline. The antenna is connected by a 40 meter cable to a proces-



The portable electromagnetic induction unit creates a primary field Bp which induces eddy currents Je in the ground. These in turn produce a secondary magnetic field Bs. The ratio Bs/Bp is indirectly measured by the receiver and is related to the ground conductivity.

	Principle Of Operation Of The Electromagnetic Induction Method	Figure 1.



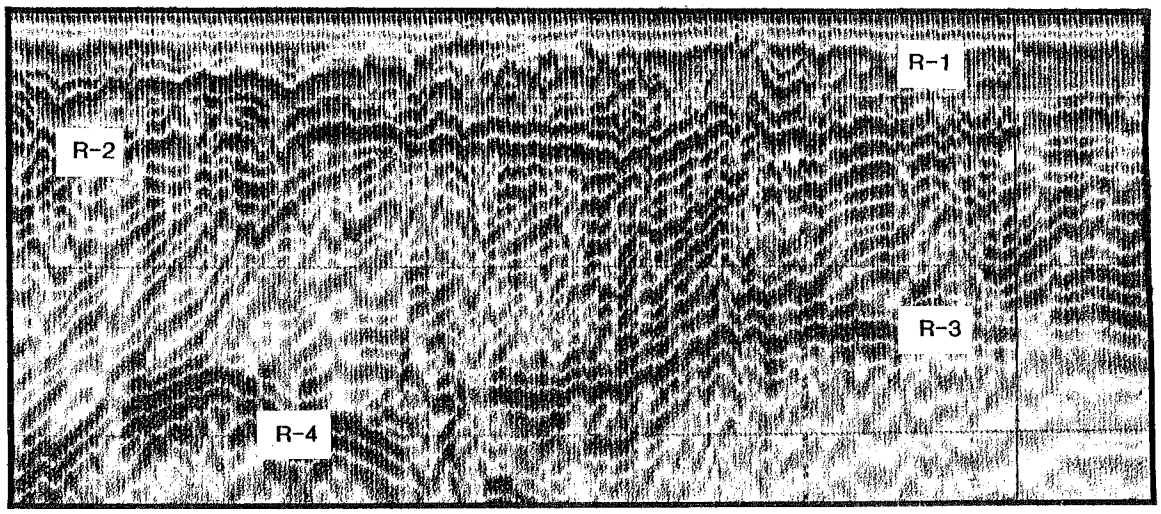


Figure 2. Ground penetrating radar technique (upper) and example of radargram (lower).

sor and display recorder. During the traverse, the antenna alternately transmits and receives high frequency (500 MHz) radar pulses. The received pulses, which represent reflections from subsurface features are immediately processed and displayed on the graphic recorder. Since this transmit/ receive process occurs at such a high rate, a vertical profile or "sounding" is obtained for each 1 to 4 inches of horizontal travel along the survey transect.

The resulting display is a continuous subsurface profile providing detailed information on subsurface features. Those features on the radargram that represent soil horizons or stratigraphic layers are produced by changes in the conductivity between adjacent layers of soil. Typically these variations can be associated with changes in lithology, an increase in moisture content, the presence of contaminants having electrical conductivity properties different than those of water and discrete objects such as electrical utilities, pipes, drums, tanks and miscellaneous debris (Figure 3).

The ideal signature or reflection pattern from a round object, such as a pipe or tank is a hyperbole. However, soil conditions can distort this ideal signature and produce other shapes or reflection patterns. The depth to which a target can be located is dependent on the electrical characteristics of the soils, the size of the target, and the conductivity of the target relative to the surrounding soils. For this survey the maximum depth of penetration is believed to be 15 to 20 feet.

FIELD PROCEDURES

Data were collected along a series of parallel transects, spaced at 10 foot intervals. In order to rapidly locate buried drums or metallic debris, which would produce anomalous conductivity values, the EM-31 survey was conducted first . The position of these anomalous zones were flagged and noted in the field book. GPR transects were then made over those areas that were identified as having high conductivity. This information was used to determine the depth and relative dimensions of the buried object producing the conductivity anomaly. Several profiles, at right angles to each other, were made across each of the anomalous zones. As the GPR antenna was pulled along each of the transects a mark was recorded on the radargram at 5 foot intervals.

Field notes describing the general condition of the ground surface, such as the location of surface material and anomalous soil conditions, were kept

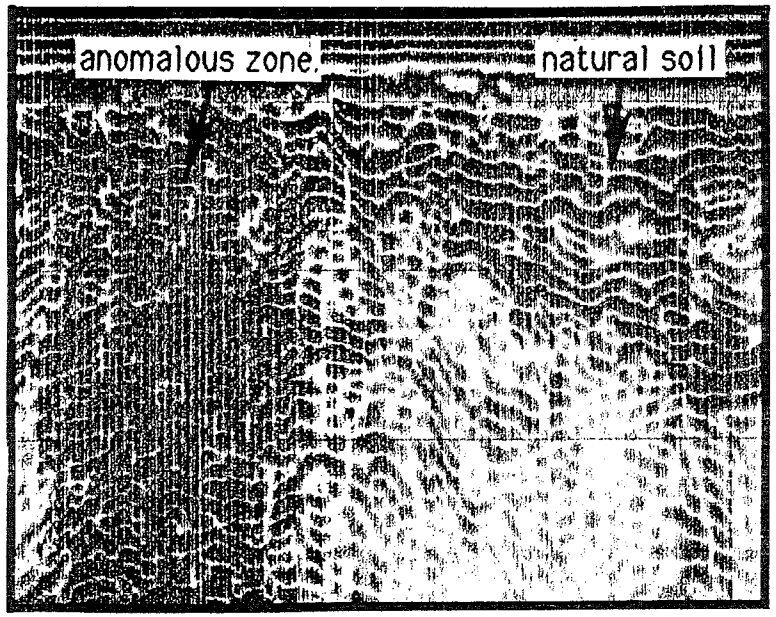


Fig.3a. Radargram showing natural soil conditions and an anomalous zone.

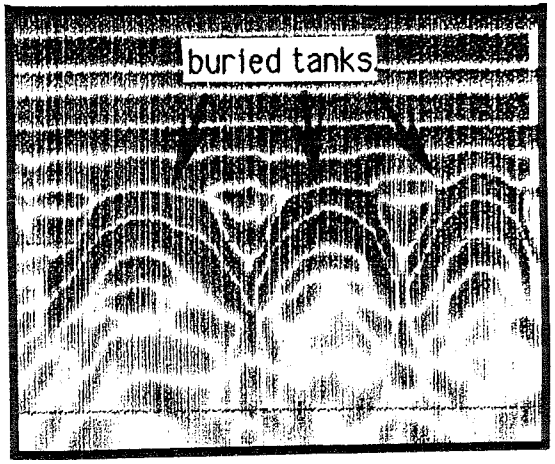


Fig.3b. Arcuate patterns produced by 3 buried tanks.

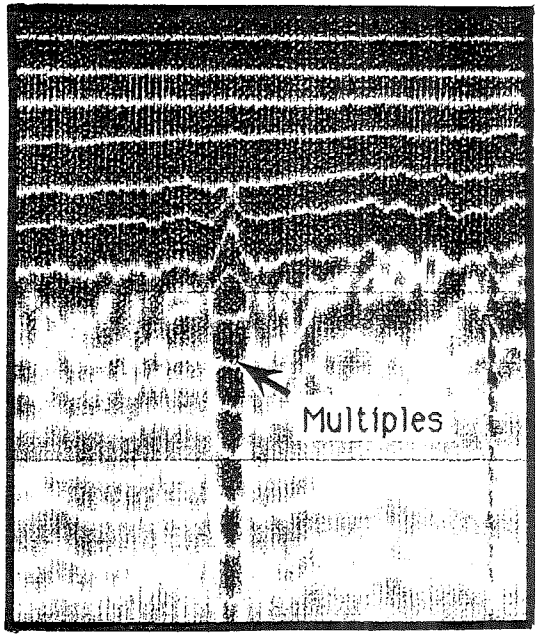


Fig.3c. Multiples or ringing on radargram caused by metallic object.

Figure 3. Ground penetrating radar records (radargrams) showing typical reflection patterns of or various subsurface features

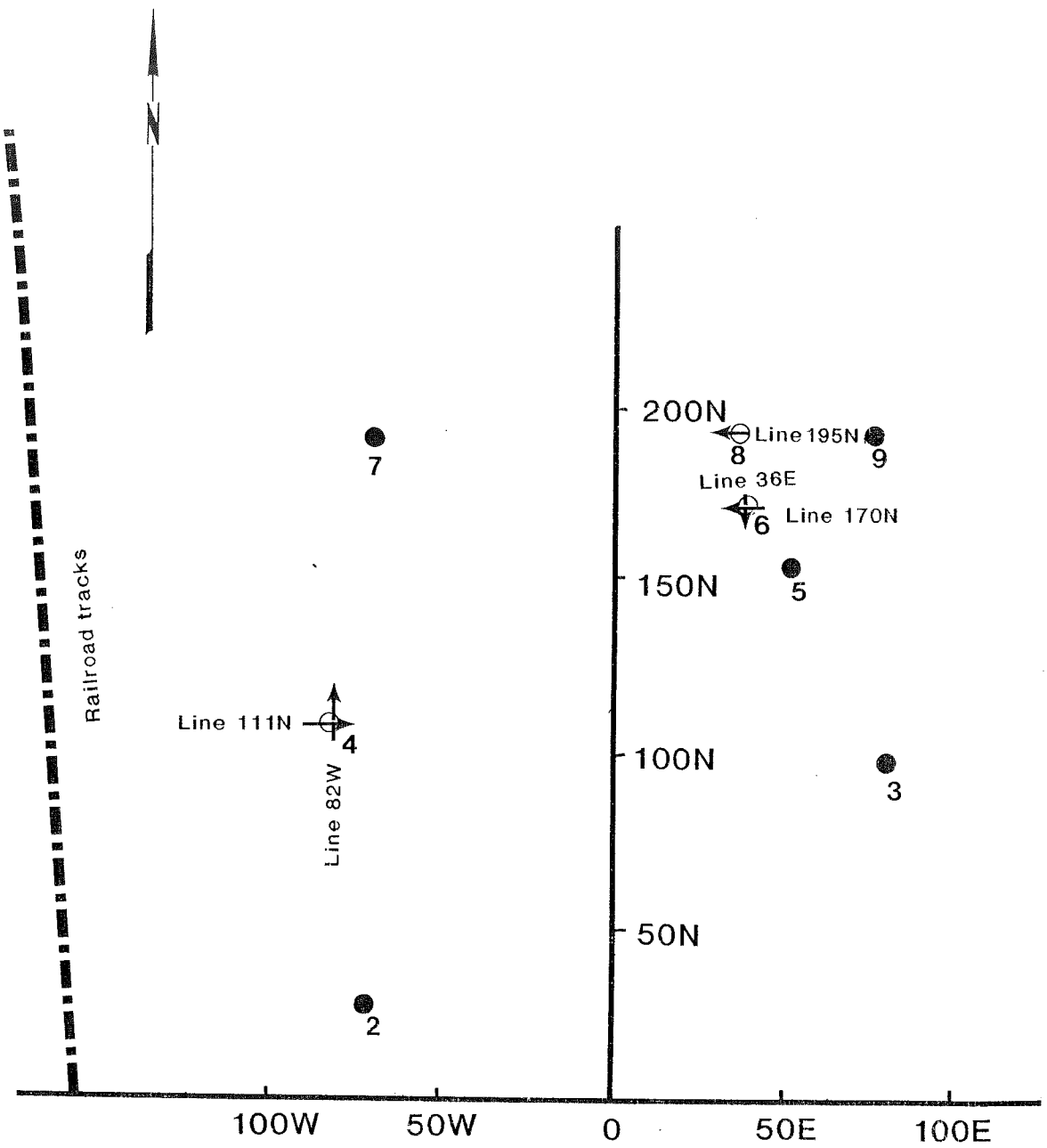
during the survey. This information was used to assist in the analysis of the GPR data.

DATA ANAYSIS AND INTERPRETATION:

The following table summarizes the results of the EM-31 and GPR survey. Refer to Figure 4 for the location of the described features.

TABLE 1

NO	STATION	DESCRIPTION OF ANOMALY
1	0N, 0E	Survey control point, painted fence post.
2	30N, 70E	EM anomaly due to surface debris.
3	100N, 80E	Small EM anomaly, no target noted on GPR.
4	111N, 82W	Highly conductive zone approximately 10 foot in across. GPR records indicate buried metallic objects at a depth of 2 to 4 feet (Figure 5A).
5	155N, 45E	EM anomaly due to surface debris.
6	170N, 36E	EM anomaly approximately 3 feet in diameter. GPR record indicates subsurface debris at a depth of 1 to 2 feet (Figure 5B).
7	190N,70W	EM anomaly due to steel plate at a depth of 1 inch.
8	195N, 34E	EM anomaly and a GPR target at a subsurface depth of 4 feet (Figure 5C).
9	195N, 76E	EM anomaly due to surface debris.



GPR and EM anomalies due to subsurface feature.
See Fig. 5 for radargrams on these transects.

EM anomalies due to surface debris.

0 50 100 150
scale feet

SITE MAP SHOWING CONDUCTIVITY AND GPR ANOMALIES.

Figure 4.

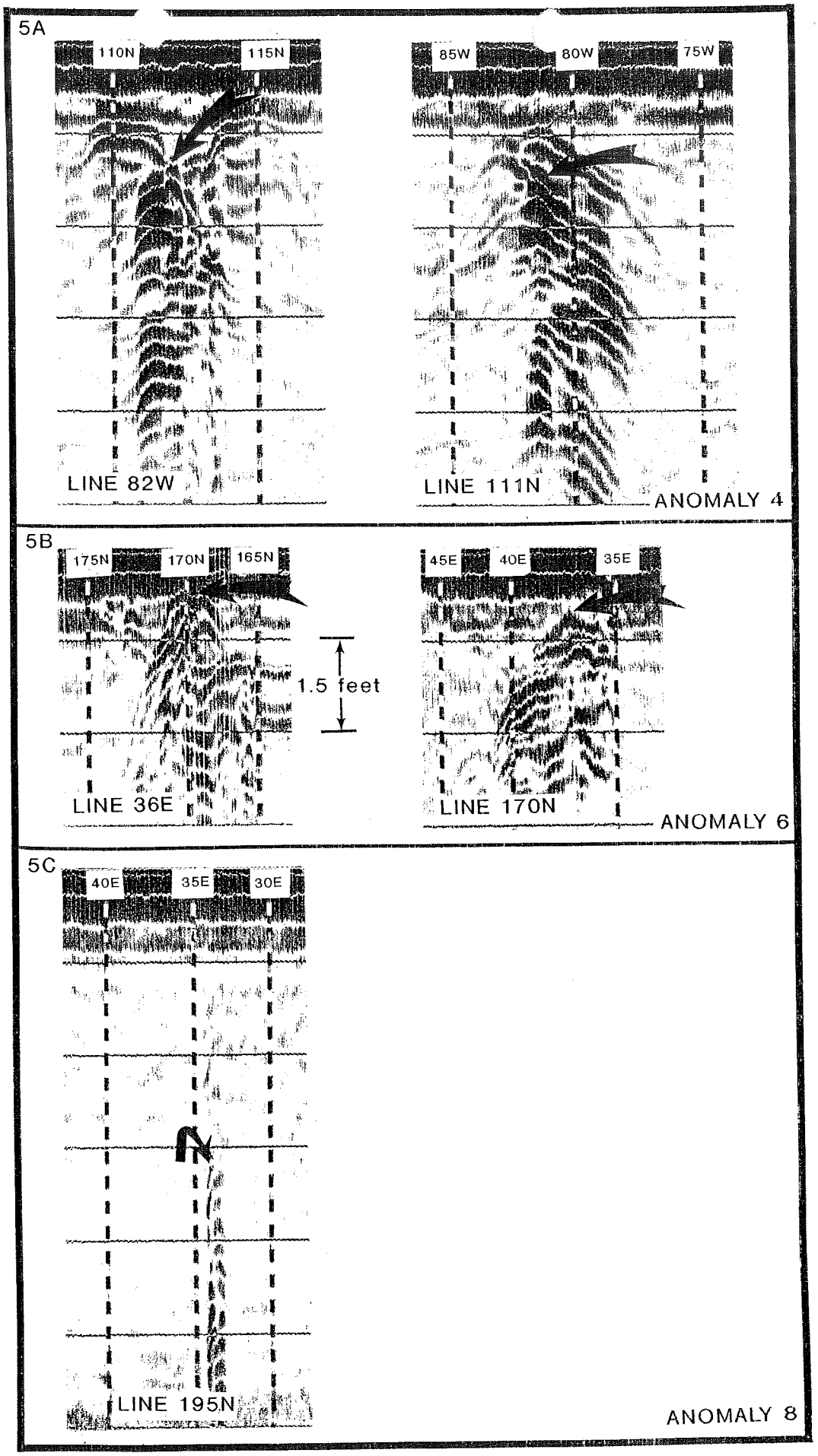


Figure 5. Examples of radargrams of subsurface anomalies.

SUMMARY AND CONCLUSIONS

Ground penetrating radar (GPR) and a terrain conductivity meter (EM-31) were used to map portions of the Pacemaker Industry Property suspected of containing buried drums.

Several anomalous zones, having high conductivity, were the result of surface debris that was readily identified in the field. However, the radargrams from three areas of high conductivity (anomaly numbers 4, 6 & 8) showed evidence of subsurface objects. The possible source of these anomalies are:

NO 4: Possible buried drums or tanks. Figures 5A shows that the hyperbolic shaped target produces a "ringing" or multiple reflection on the record which is characteristic of round, metal objects.

NO 6: Although the target does not show strong "ringing" the hyperbolic shaped suggested that it may be a possible drum or pipe. (Figure 5B).

NO. 8: Very strong "ringing" characteristic of flat metallic object (5C).

OLYMPUS
ENVIRONMENTAL, INC.

SEP 17 1990

September 14, 1990

Mr. Jeff Dill
State of Washington
Department of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205

W. O. #90-3021

Dear Jeff:

Enclosed is our invoice and a report of the results of our investigation of alleged buried drums at Pacemaker Industries. The site is located near Lily St. & Nora St. in Spokane, Washington.

The drums were allegedly buried on Burlington Northern Railroad property adjacent to the Pacemaker Industries' property (see map).

Olympus personnel arrived on site at 8:00 AM, July 18, 1990. After an initial site survey with Jeff Dill of the State of Washington, Department of Ecology, an attempt to locate the drums via a metal detector supplied by U. S. ~~B.~~ E P. A. proved unsuccessful. Jeff Dill and Wally Semon departed the site for a 10:00 AM meeting at the DOE office. The meeting was chaired by Claude Sappingban, Division Supervisor, and the attendees were Jan Bizaska, Bruce Howard, Jeff Dill and Wally Semon. The meeting centered on the sight location and the number of trenches to be dug in the event the drums were not located properly by Jim Dragoo.

The Olympus team re-entered the site at 12:30 PM with a backhoe. Trench #1 was installed. The trench was 8' x 61' x 24". No drums were found. It appeared that no excavation type work had ever taken place at this location. The soil conditions were 2' of till followed by large cobbles and boulders. These soil conditions were consistent throughout the site. Olympus excavated 278 lineal feet of trench approximately 6' to 8' deep. We also excavated 273 lineal feet of trench by 2' deep. As earlier stated, this trench indicated no excavation had been made in this area.

Environmental & Hazardous Waste Services
Kent, WA Portland, OR Helena, MT

25636 74th Ave. S. • Kent, Washington 98032 • (206) 854-5094

Olympus Environmental appreciates the opportunity to assist the Department of Ecology in their environmental concerns and looks forward to continuing in the future.

Sincerely,

Wally Semon
President

cc: Chuck Hines, WDOE
file, 90-3021

OLYMPUS ENVIRONMENTAL, INC.
25636 74th Avenue South
Kent, Washington 98032
(206) 854-5094

Invoice # 90-01-594

Date 7/31/90
Customer WDOE
Agent Jeff Dill
Phone (509)456-4457
Job Location Spokane, WA
Job Description Drum Investigation
Work Order # 90-3021

DAILY WORK SHEET

Date	Name	From	To	Hours	Rate	Total
7/31	Principal	7/16	7/18	(b) (4) [redacted]		
	Hazmat Supervisor	7/16	7/18			
	Environmental Tech (2)	7/16	7/18			
	Administration					

Equipment/Materials	Units	Rate	TOTAL
Truck - 3 Ton	(b) (6), (b) (4) [redacted]		
Pickup			
Mileage			
Lodging & Subsistance			
*Mob/Demob			
*Backhoe			
*ODC Handling (10%)			263.30
		Total Equip./Mat.	3,763.30

Total Labor	2,660.00

Total Labor	2,660.00
Total Equip.	3,763.30
Work Sheet Total	$6,423.30

Dill

AUG 28 1990

BURLINGTON NORTHERN RAILROAD

NORTHERN REGION ENGINEERING

2200 First Interstate Center
999 Third Avenue
Seattle, WA 98104-1105

Mr. Jeff Dill
Washington Dept. of Ecology
North 4601 Monroe
Suite 100
Spokane, WA 99204

August 24, 1990

Dear Mr. Dill:

This letter references a recent request for access information from Wally Semon of Olympus Environmental pertaining to work anticipated by the Dept. of Ecology on Burlington Northern's property adjacent to Pacemaker Industries in Spokane.

We understand that the Dept. of Ecology wishes to utilize Ground Penetrating Radar in an attempt to locate barrels that may have been deposited on Burlington Northern property by employees of Pacemaker Industries. Burlington Northern is willing to allow this work to proceed but the Department of Ecology must address Burlington Northern's liability for employees involved in this work.

I therefore have attached a Corporate Release Form for your review. If agreeable please complete and return to this office. Burlington Northern understands that this work will commence the week of September 6 and that no digging will be attempted during this study. Should any removal of soil be required at this site we would like a work plan to be developed so that a formal access agreement can be arranged.

If I can be of any further assistance or if there are any questions please feel free to contact me at 206-467-3382.

Sincerely,

B A Sheppard

B. A. Sheppard
Manager Environmental Engineering

Att.

BAS/au2490fa02

cc: Ms. A. M. Blythe
Mr. D. C. Seep

CHRISTINE O. GREGOIRE
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
N. 4601 Monroe, Suite 100 • Spokane, Washington 99205-1295 • (509) 456-2926

August 31, 1990

B.A. Sheppard
Burlington Northern Railroad
2200 First Interstate Center
999 Third Avenue
Seattle, WA 98104-1105

Dear Mr. Sheppard:

Enclosed is the Corporate Release Form that you requested.

The work at this site is scheduled to begin on the 6th of September. We will keep you informed with the outcome of our investigation.

If we should find anything during this study and decide that digging and removal would be our next course of action, you will be notified. A work plan will be provided for your review as you requested.

Thank you for your assistance in this matter, and feel free to contact me at (509) 456-2926 if I can be of any help to you.

Sincerely,

Jeff Dill
On-Scene Coordinator
Eastern Regional Office

JD:bkc
Enclosure

CORPORATE RELEASE
BURLINGTON NORTHERN RAILROAD

Washington State Department of Ecology,
(name)

a State Agency ~~corporation~~, in
(state of incorporation)

consideration of the permission granted to it by Burlington Northern Railroad, hereinafter called "Burlington", to* utilize Ground Penetrating Radar in an attempt to locate barrels that may have been buried on Burlington Northern property by Pacemaker Industries.

does hereby assume all risk of personal injury to or death of its officers, agents, and employees, and loss of or damage to property in its or their custody or possession, which shall in any manner arise from or be caused by defects in tracks, roadbed, structures, trains, engines, cars, or other equipment or apparatus of any kind whatsoever, or by accident of any kind whatsoever, however it may occur or be caused whether due to the negligence of Burlington or any of its subsidiary or affiliated companies, or the officers, agents, and employees of said companies, or otherwise, in any manner arising or growing out of the above-mentioned permission. Burlington is hereby released and forever discharged, as well as its subsidiary and affiliated companies, and the officers, agents, and employees of Burlington and said companies, from all claims, liabilities, and costs of every kind by reason of any such injury, death, or loss or damage to property.

Execution of this release gives full assurance that employees of corportation named below will observe all general, safety and operating rules of Burlington applicable to their conduct and activities while in,

that this, among other things, prohibits use or being under the influence of alcohol or narcotics, playing of practical jokes, or scuffling, or other activities jeopardizing their safety or that of others.

This release shall be binding upon the successors and assigns of the corporation named below.

IN WITNESS WHEREOF, these presents are executed by the undersigned, an officer of the corporation named below, duly authorized to execute same by authority of the Board of Directors of said corporation in its behalf.

Dated Aug 31, 1990

Company

By [signature]

Witness Claude W. Sappington

*Describe in your own handwriting the nature and extent of the request to go and be upon Burlington's property or equipment.

LABORERS' NATIONAL HEALTH AND SAFETY FUND

905 – 16th St., N.W., WASHINGTON, D.C. 20006-1765
TEL. A/C 202-628-5465

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Association

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Director

Knut Ringen
Dr.P.H., M.P.H., M.H.A.

RECEIVED
AUG 16 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL

August 15, 1990

Claude Sappington
Washington Department of Ecology
N 4601 Monroe Suite 100
Spokane, Washington 99205

RE: PACEMAKER INDUSTRIES

Dear Mr. Sappington;

I am employed by the Laborers National Health and Safety Fund. This is a jointly funded and managed trust by Management and Labor. It was established to promote health care to the employees, assist in cost control of insurance coverage, and assist the signatory employers in compliance issues. My official title is: Field Coordinator-Northwest Region.

I was apprised recently of some alleged violations by Pacemaker Industries, at their paint shop facility in Spokane. At that time there was no confirmation but an investigation was underway. I was in Spokane when I heard of this, so I took the opportunity to go out and photograph the site.

Over the past few years, Pacemaker has held job to job agreements with local unions signatory to this Trust. They now, however, do not. Consequently, I am interested in this from only an employee exposure problem and if any claims were paid by the employees insurance rather than Workman's Compensation. We have started an investigation on the claims issue and I would like to know the outcome of your departments investigation of the dumping.

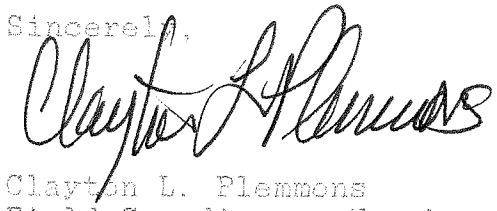
In talking to one employee of Pacemaker, I was told of several exposures, by employees, to lead, toluene, MEK, etc. These claims, if proven, would

display a serious disregard for employee safety and would warrant notification of any other State agency that was deemed appropriate. I hope to interview as many employees as possible in the future on this issue.

To aid me in my endeavor I would greatly appreciate it if you could send be a brief synopsis of the WDOE's investigation, conclusions, and a copy of any warnings or citations, if any, that were issued.

Also if there were any samples of soil, etc. taken a copy of those results would be appreciated. Should a FOIA request be needed for this information, please treat this letter as such. Thank you again for your assistance on issue.

Sincerely,



Clayton L. Plemmons
Field Coordinator Northwest Region
Laborers National Health and Safety Fund

OLYMPUS ENVIRONMENTAL, INC.
25636 74th Avenue South
Kent, Washington 98032
(206) 854 5094

State of Washington
Department of Ecology
N 4601 Monroe, Suite 100
Spokane, WA 99205

Invoice 90-01-594

DATE	07/31/90
W.O. NUMBER	90-3021
P.O. NUMBER	
TERMS	Net 30

DATE OF WORK	DESCRIPTION	PRICE
July 1990	Labor:	2,660.00
	ODC Handling/Equipment/Material:	3,763.30
	Total:	6,423.30
	Tax:	520.29
	TOTAL:	$6,943.59

PLEASE PAY BY THIS INVOICE. NO STATEMENT WILL BE SENT.

OLYMPUS ENVIRONMENTAL, INC.

Lab results on soil samples taken by Olympus.

Jeff

Date: AUG 6, 1990

To: JEFF DILL

FAX Number: 509-456-6175

Phone Number: N/A

From: WALLY SEMON

Work Order Number:

Number of Pages (Including Cover Page): 2

Comments:

Olympus FAX Number: (206)852-0832

Environmental & Hazardous Waste Services

Kent, WA Portland, OR Helena, MT

25636 74th Ave. S. • Kent, Washington 98032 • (206) 854-5094

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS
4630 PACIFIC HIGHWAY EAST, SUITE B-14, TACOMA, WASHINGTON 98424 · TELEPHONE (206)922-2310 · FAX (206)922-5047

Report To: Olympus Environmental Date: July 30, 1990

Report On: Analysis of Soil Lab No.: 12353

IDENTIFICATION:
Samples Received on 07-20-90
Project: 90-3021 WDOE - Spokane

ANALYSIS: total metals — inconclusive

Lab Sample No.	1	2
Client ID	SD-1	SD-2
Matrix/Units	Soil ppm	Soil ppm
Arsenic	47.3	50.9
Barium	251	382
Cadmium	1.8	3.5
Chromium	53.5	71.6
Lead	134	214
Mercury	< 0.1	< 0.1
Selenium	< 0.5	< 0.5
Silver	< 0.1	< 0.1
2-Butanone (MEK)	< 5.0	< 5.0

SOUND ANALYTICAL SERVICES

C. Larry Suraw

C. LARRY SURAW

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

U.S. EPA REGION 10

NEW FAX NUMBER

OFFICE OF CRIMINAL INVESTIGATION

FAX: (206) 442-0149
FTS 399-0149

TO CONFIRM YOUR FAX, CALL THE PERSON YOUR FAX WAS SENT TO.

TO: Bruce Howard
PHONE NUMBER:
CITY, STATE / REGION: Spokane

FAX NUMBER: 509-456-6175

FROM: Ken Piney
PHONE NUMBER:
CITY, STATE / REGION: Seattle

TOTAL PAGES: 2

ADDITIONAL REGION 10 FAX NUMBERS:

FOR FAX INFORMATION CALL (206) 442-4341 FOR THE FAX OPERATOR. GENERAL FAX # (206) 442-4672

Regional Administrator Press Office Congressional Activities Office of Enforcement Office of Criminal Investigation	(206) 442-0149 FTS 399-0149	Management Division	(206) 442-4672 FTS 399-4672
		Office of Regional Counsel	(206) 442-0163 FTS 399-0163
Air and Toxics Division Pesticides Branch	(206) 442-0110 FTS 399-0110	Superfund Branch RCRA Branch Hazardous Waste Policy	(206) 442-0124 FTS 399-0124
Environmental Services	(206) 442-0119 FTS 399-0119	Water Division	(206) 442-0165 FTS 399-0165

U.S. EPA - REGION 10, 1200 - 6TH AVE., SEATTLE WA 98101

3 '90 08:12

nplaint
71 (Rev

509 - 6 - 6175

NOTE: Hand print names legibly; handwriting satisfactory for remainder.
Indices: ☒ Negative ☐ See below

FOIMS - neg

Subject's name and aliases	Character of case
PACEMAKER INDUSTRIES Spokane, WA HAZARDOUS WASTES	ENVIRONMENTAL CRIME?
	Complainant ☐ Protect Source ANONYMOUS
	Complaint received ☐ Personal ☐ Telephonic Date _____ Time _____
Address of subject	Complainant's address and telephone number SPOKANE WA

Subject's Description						
Race	Sex ☐ Male ☐ Female	Height	Hair	Build	Birth date and Birthplace	
Age		Weight	Eyes	Complexion	Social Security Number	
Scars, marks or other data						

Facts of complaint Called adv he saw an article in the "Coeur D'Alene Press" Sat 7/21/90 entitled "Experts call off Barrel Search" re Pacemaker Ind. Caller adv he worked at Pacemaker during 1986-88 and is aware of toxic waste disposal. He adv that "they" (EPA) are looking in the wrong places. They should be looking on property of Burlington Northern adjacent to Pacemaker. Caller adv he participated in burying of barrels containing paint, dye, etc., and they also dug trenches to dump dye into. Also, they had a seepage pit on NE corner of property near propane tanks where they dumped "chromin oxide" at least once a week. This substance is so toxic, they often found dead pigeons in that area. Caller adv he did not wish to give his name as he was involved, but just wanted them (EPA) to look in the right places.

Facsimiled to NEIC 7/23/90 [illegible]

Talked w/EPA duty
Agt, passed on info
He gave me 800 # for future
use 1-800-424-8802
(around-the-clock #)

T/S Jane C. Morgan
(Complaint received by)

Do not write in this space.

SEARCHED _____ INDEXED _____
SERIALIZED _____ FILED _____

JUL 23 1990

FBI - SEATTLE

[illegible]
BLOCK STAMP

Received from FBI - Seattle on 7/23/90
K. Purdy

07/23/90 10:32 FAX 206 442 0149 REGIONAL ADMIN 002/002

TELEPHONE USE REPORT

State of Washington
Department of Ecology
Eastern Regional Office

DATE: 8-7-90

TIME: 2:40

SUBJECT: Pacemaker Investigation

CALL: To Jim Malm

From Anonymous male

ROUTING

Jeff D.
Bruce H.
Pacemaker file

LOCATION AND TELEPHONE NUMBER:

SUMMARY OF CALL:

Caller stated that he had knowledge of the situation and that we dug 25' in wrong direction of buried material. Example he used is that if we dug E. → W we should have been 25' further E. He also said that he did have first hand knowledge of the situation and knew for a fact the material was buried there. He indicated that the company had buried other stuff in different locations, but had no specific information.

JRM

(Signature)

Spokesman-Review 7-19-90

Cleanup experts fail to find waste barrels

By Russell Carollo
Staff writer

Toxic waste cleanup experts have suspended their search in the Spokane Valley for barrels allegedly buried behind a sign-making plant accused of dumping hazardous chemicals, state officials announced Wednesday.

"They've been unsuccessful in being able to find anything," said Claude Sappington of the state Department of Ecology.

Agency officials, however, will continue analyzing soil samples to determine if Pacemaker Industries dumped chemicals around its property at E7203 Nora, Sappington said.

The Department of Ecology investigation is the second in as many years into allegations of dumping at Pacemaker.

In September 1988, the state received an anonymous complaint alleging the company was "cleaning out paint equipment in back of (the) facility and burying drums of solvent in back and in (a) field next to their building," a DOE record says.

DOE said there was no other evidence to support that allegation, so no one dug to look for the drums.

Pacemaker owner Robert Ramer denied ordering employees to bury anything near his plant, and he also denied that above-ground barrels DOE found last week are dangerous.

The company has been under investigation by DOE since last week, when a former Pacemaker foreman led state officials to about a dozen barrels near the company's plant. The ex-employee, James Dragoo Jr. of Spokane, also told DOE officials he buried up to 15 other barrels near the plant two years ago, Sappington said.

On Tuesday, workers for Olympus Environmental, a company specializing in toxic cleanup, dug trenches behind Pacemaker's plant, Sappington said, but they found no evidence that barrels were buried there two years ago.

"There was no evidence that the soil had been disturbed," he said.

But Steve Rudd, an official with a contractors' association investigating wage complaints at Pacemaker, said two more people who claim the barrels were buried are willing to assist DOE. Rudd, with Northwest Fair Contracting Association, said Dragoo was confused about the spot where he buried the barrels two years ago.

7/19/90

INTERVIEW w/ (b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

1)

2)

3)

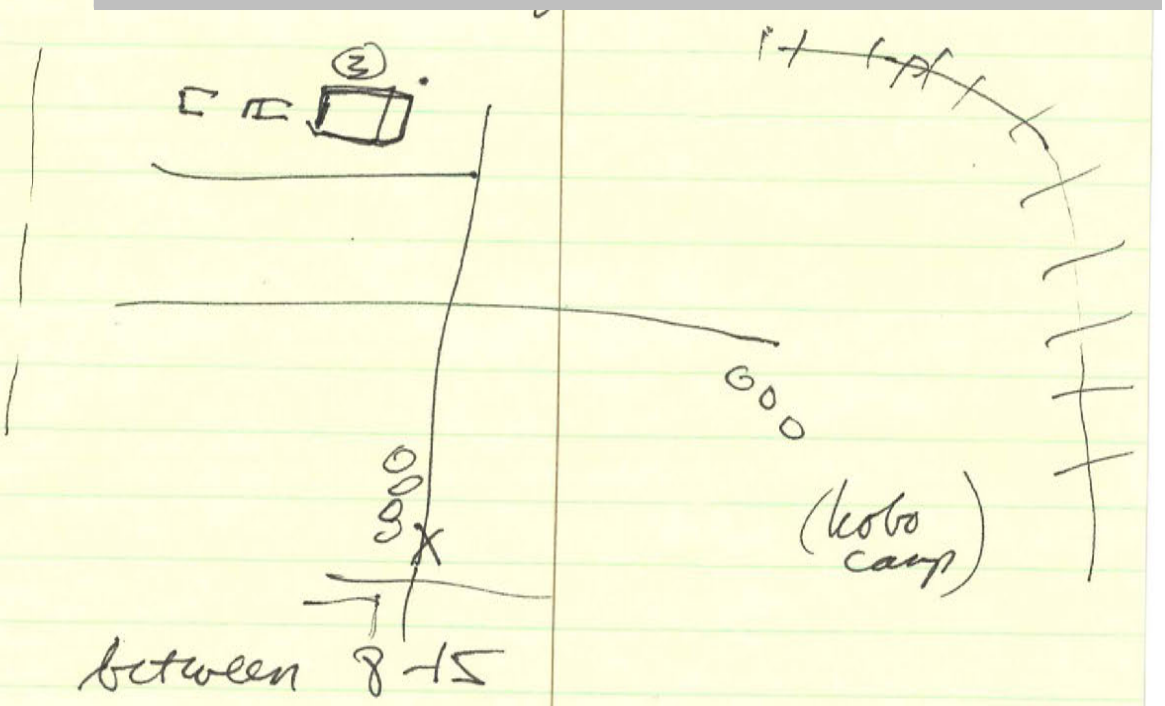
Bob Ramer (b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

Drums were lined up outside –
water up to ~ 6" from top
(looked like)
white material (5-6 drums)
no odor

(b) (6), (b) (7)(C)

[redacted]



hole was rectangular shaped; hole was 9'-10' at bottom; dumped w/ buckets (4 or 5 times) (b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

one barrel from near hobo camp has black tar-like substance

(b) (6), (b) (7)(C) [redacted]

can't remember # that had tops or didn't

open barrels - poured out - (only 4-5 inches on top) - rest was whitish, solid

other drums had oil

size - maybe
8' X 15' — within range
10' X 10'

person told them it was
sludge from tank (stuff he saw later & asked about it)

(b) (6), (b) (7)(C)

[redacted]

(b) (6), (b) (7)(C)

[redacted]

(b) (6), (b) (7)(C)

[redacted]

a

~ 1 hour to bury them

(b) (6), (b) (7)(C)

[redacted]

anything else buried on site?

MEK – spray out to clean stripes; scrape off stripes / pushed in field

(b) (6), (b) (7)(C)

[redacted]

~2 weeks after burying drums; no H_2O in shop; Bob told him to dig up liner; he started digging at main bldg. – dug all the way to shop – just to N of edge of shop edge – found dark spot w/ strong smell

(b) (6), (b) (7)(C)

[redacted]

he dug ~ 8' down (pipe is 3'-5' down)

soil looked "rich"

PVC pipe looked sort of burnt — he pulled on it, & it came apart "like a piece of gum on a hot day"

(b) (6), (b) (7)(C)

[redacted].

they'd been dumping MEK there for ~15 years

were <u>all</u> 55-gal. drums

(found a lid from another drum as he dug)

<u>definitely</u> 8-15 drums

some material probably spilled out when he dumped it

606145

FILE LETTER

LIMIT ONE ROLL PER ENVELOPE

DATE	7/18
TIME IN	
TIME DUE	
CLERK	
TWIN CHECK	

NAME Ecology, Dept. Of-Bruce PHONE

ADDRESS

CITY & STATE ZIP

11544

FILM TYPE	EXPOSURES	SIZE	ASA	REPRINTS/ENLARGEMENTS
☐ BLACK & WHITE	☒ 12	☐ DISC	☐ 25	NO. OF NEG STRIPS OR SLIDES
☐ KODACOLOR	☐ 15	☐ 110	☐ 100	☐ REPRINTS
☐ KODACHROME	☐ 20	☐ 126	☐ 200	☐ 5 x 7
☒ EKTACHROME	☐ 24	☒ 135	☒ 400	☐ 8 x 10
☐ EKTAR	☐ 36	☐ ____	☐ 1000	☐ 8 x 12
☐ COLOR PRINT FROM SLIDE			☐ 1600	☐ 11 x 14
☐ OTHER			☐ ____	☐ OTHER ____

PRINTS ☐ 1 Each ☒ 2 Each ☐ OTHER ____

SPECIAL INSTRUCTIONS 3x5

NO. OF PRINTS MADE 28

PRICE

$ 3.49

$ 1.00 SP

$

$

TOTAL 2.49

Tidyman's

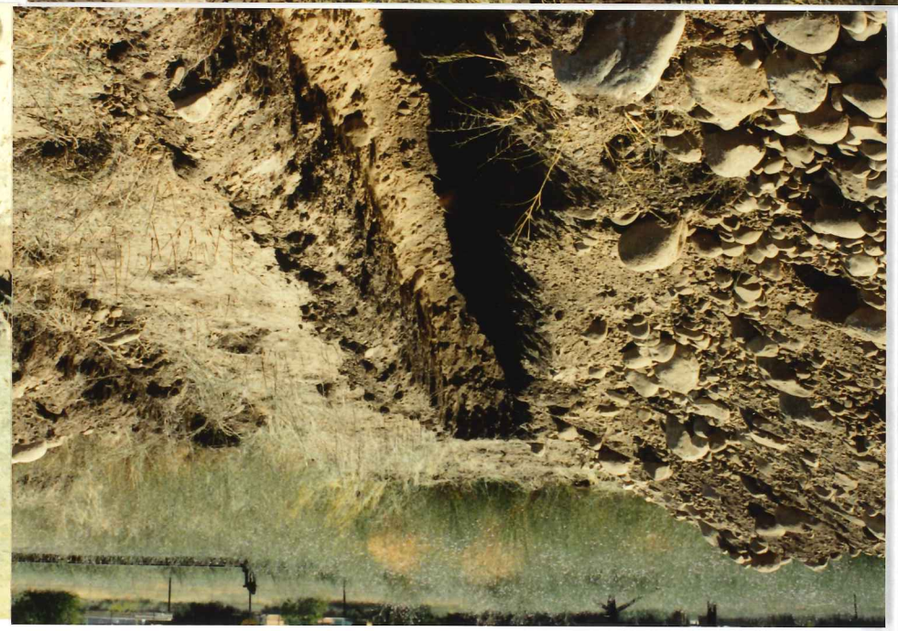
TIDYMAN'S PHOTO CENTER

N. 6401 Cedar

Spokane, WA 99208

328-5075

Jacklin Seed



WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 1 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trench #3
City/County: Spokane State: WA
Date: 07/17/90 Time: 2:30 p.m. Weather: clear, hot

Photo Number: 2 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trench #2
City/County: Spokane State: WA
Date: 07/17/90 Time: 2:35 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 3 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trench #1
City/County: Spokane State: WA
Date: 07/17/90 Time: 2:40 p.m. Weather: clear, hot

Photo Number: 4 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trenches #1, 2
City/County: Spokane State: WA
Date: 07/17/90 Time: 2:45 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 5 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trench #4
City/County: Spokane State: WA
Date: 07/17/90 Time: 2:50 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 6 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Trench #5
City/County: Spokane State: WA
Date: 07/17/90 Time: 3:10 p.m. Weather: clear, hot

Photo Number: 7 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Shallow extensions of first 4 trenches
City/County: Spokane State: WA
Date: 07/17/90 Time: 4:00 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 8 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Site being regraded after trenches filled
City/County: Spokane State: WA
Date: 07/17/90 Time: 6:30 p.m. Weather: clear, hot

Photo Number: 9 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Site regraded
City/County: Spokane State: WA
Date: 07/17/90 Time: 6:45 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 10 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Site regraded
City/County: Spokane State: WA
Date: 07/17/90 Time: 6:50 p.m. Weather: clear, hot

Photo Number: 11 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Site being regraded
City/County: Spokane State: WA
Date: 07/17/90 Time: 6:55 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 12 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Side of Pacemaker building, sampling site
City/County: Spokane State: WA
Date: 07/17/90 Time: 7:00 p.m. Weather: clear, hot

Photo Number: 13 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Drums of road paint staged on Pacemaker prop.
City/County: Spokane State: WA
Date: 07/17/90 Time: 7:10 p.m. Weather: clear, hot

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Official Photograph Log

Photo Number: 14 Photographer: Bruce Howard
Location: Pacemaker Industries
Subject: Other drums of materials staged
City/County: Spokane State: WA
Date: 07/17/90 Time: 7:15 p.m. Weather: clear, hot

PHOTO NO.: 1

DATE: 7-16-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG1D

DESCRIPTION: drums to be tested that may designate as d.w.

COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Follow-up

PHOTO NO.: 2

DATE: 7-16-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM:

CAMERA:

DESCRIPTION: 55 gal. drums of paint product that has been sold.

COMMENTS: also 1 drum thinner
1 drum asphalt sealant

PHOTO NO.: 3

DATE: 7-16-90

TIME: 3:00p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: drums of product paint & thinner in foreground

COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Follow-up
Area on this side of fence is where MEK was aledgedly dumped

PHOTO NO.: 4

DATE: 7-16-90

TIME: 3:05p.m.

TAKEN BY: Jan Brzoska.

WITNESS: Bob Ramer

FILM:

CAMERA:

DESCRIPTION: orange & white striped drums used for traffic control
2 - empty 55 gal. drums in foreground

COMMENTS:
Area where drums of asphalt sealant & drums with small amts of dried paint sludge were removed from.

PHOTO NO.: 5

DATE: 7-16-90

TIME: 3:05 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Area where drums of asphalt sealant & small amts. of dried paint sludge were removed from.

COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Followup

PHOTO NO.: 6

DATE: 7-16-90

TIME: 3:05 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM:

CAMERA:

DESCRIPTION: Traffic control drum

COMMENTS: Area where small amt. of asphalt sealant which had leaked on the ground has been removed.

PHOTO NO.: 1

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Plating line for chrome plating signs

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 2

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Tank used in chrome plating process

COMMENTS:

PHOTO NO.: 3

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Treatment tank

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 4

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Treatment tank

COMMENTS:

PHOTO NO.: 5

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG10

DESCRIPTION: 6-55 gal drums of waste water with a little chrome

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 6

DATE: 7-12-90

TIME:

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: 4-55 gal. drums of soap. solid

COMMENTS:

PHOTO NO.: 7

DATE: 7-12-90

TIME: 2:50 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG10

DESCRIPTION: 3-55 gal. drums of used oil outside of maintenance shop

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 8

DATE: 7-12-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: 1-55 gal. drum laquer thinner 1 drum leftover furnace oil. The other drum empty

COMMENTS:

PHOTO NO.: 9

DATE: 7-12-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/O

DESCRIPTION: 4-55 gal. drums chrome contaminated waste water evaporating. White drum contains asphalt sealant

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 10

DATE: 7-12-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: road leading to Burlington Northern Property.

COMMENTS:

PHOTO NO.: 11

DATE: 7-12-90

TIME: 3:10 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: 11-55 gal. drums white paint product used in former stripping business

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 12

DATE: 7-12-90

TIME: 3:10 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: 7-55 gal. drums of yellow paint product used in former stripping business. 4th drum from right turned upside down & was leaking some. It had come from the manufacturer with small hole in bottom of drum.

COMMENTS:

PHOTO NO.: 13

DATE: 7-12-90

TIME: 3:10 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG\D

DESCRIPTION: Mr. Ramer pointing out leaking drum of yellow paint

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 14

DATE: 7-12-90

TIME: 3:10 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: 8-55 gal. product drums of paint.

COMMENTS:

PHOTO NO.: 15

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: 55 gal. drums stored adjacent to Pacemaker Industries.

COMMENTS: Pacemaker Industries, Inc.

1) empty drums.
2) drums containing small amounts of paint solids
3) drum containing asphalt sealer

PHOTO NO.: 16

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: in foreground, 55 gal. drums with small amounts of paint solids

COMMENTS:

PHOTO NO.: 17

DATE: 7-12-90

TIME: 3:15 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: KONICA MG\D

DESCRIPTION: Dried solid paint waste

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 18

DATE: 7-12-90

TIME: 3:15 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Asphalt sealant leaking from drum

COMMENTS:

PHOTO NO.: 19

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Asphalt sealant leaking from drum

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 20

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

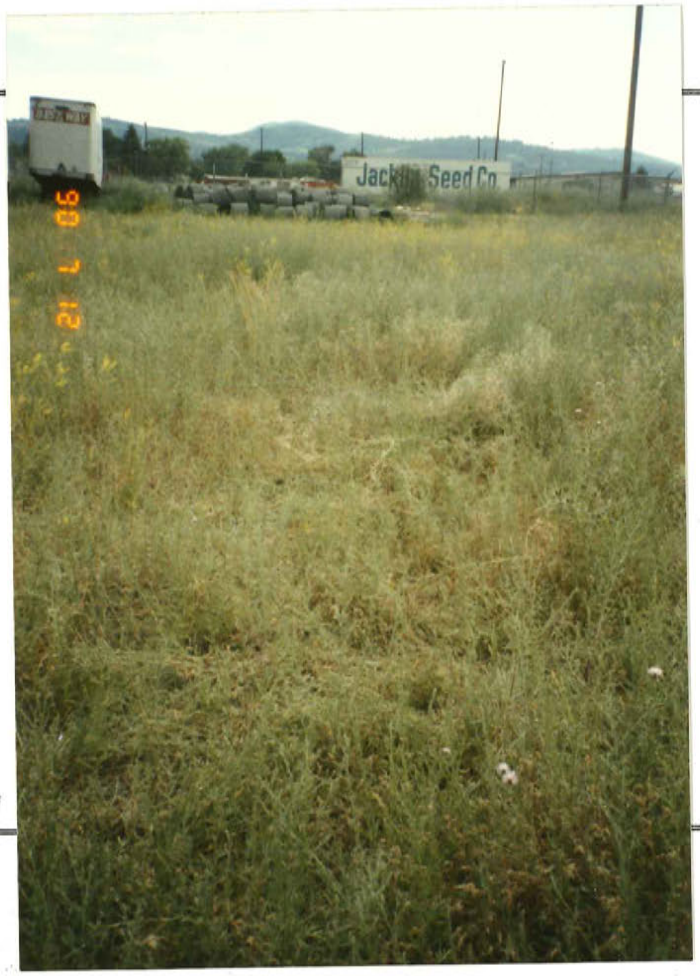
WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Area in center of photo where drums of h.w. are alledged to be buried.

COMMENTS:



Notes – on-site visit w/ Bob Ramos

Am. 2:07 7/12/90

① How did you handle waste discussed after previous visit?

-> Chempro / Seattle
Manifest • 89001 4/12/89
4/13/89

WAD 045705175

Trans. VWR

3 DRUMS F006

hasn't sent off any since.

② PAINT-THINNER – what kind? Great Western M100

③ when did you get out of
sold to Last 'Fall – '89
(Sharpline)
– mixed thinner/cleanout back in w/ paint

(4) Do you have any waste on site?

drying sludge now -
from tank
shook head "no" on other waste
on site
paint inventory in drum

(5) any one poured waste on ground
not to my knowledge -

(6) waste oil - separated rental off to N. side
solvents - think are added
to waste oil
now - 3 barrels - (saving for Spokane transfer)

(7) Do you still discharge -
~~Did you ever~~
overflow to dry well

never applied for a Utah Di permit

(8) Never buried any drums - no
employee has ever buried any
drums -

(b) (6), (b) (7)(C) [redacted]

Chrome, chrome rinse → overflow
dry, & store

cleaned 1/6 months → 2-5 gal
of chrome solid

6 drums from chrome tank —
tank had "gone bad"
6-8 months ago

(b) (6), (b) (7)(C) [redacted]

OAKITE

— rinses tanks only
take 1 soap/caustic mix w/
acid etch - to "neutralize"
& sends to dry well

soap & de-ox rinses - every time
they send batch — 1/2 - 2" off tank

outside 5 drums –
evaporating

7 – lacquer thinner
1 – unknown

(b) (6), (b) (7)(C)

[redacted]

OUTSIDE GATE

7 d. yellow line paint
(1. d. had hole – turned sprinkler down – boiled out)

12 d. white line paint

6 d. mixed paint
1 55-gal d. thinner
1 30-gal " "

- never had any drums buried here

4 Q. - 3 full - Spridge

1 partial - 1/4 unknown

left 3:24

Please print 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. W A D 0 4 5 7 0 5 1 7 5
Manifest Document No. 8 9 0 0 1
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Pacemaker Industries, Inc.
E. 7203 Nora
Spokane, WA 99206

4. Generator's Phone (509)928-3456

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
Van Waters & Rogers, Inc.

6. US EPA ID Number
W A D 0 0 9 2 3 6 8 1 1

C. State Transporter's ID

D. Transporter's Phone 509/534-0405

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
Chemical Processors, Inc.
734 South Lucile St.
Seattle, WA 98134

10. US EPA ID Number
W A D 0 0 0 8 1 2 9 0 9

G. State Facility's ID

H. Facility's Phone 206/223-0500

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. HM X Hazardous Waste ~~Liquid~~ SOLID, N.O.S., ORM-E N.A. 9189 (F006) (Contains Chromic Acid)	003	DM	1050	P	F006
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
CP30016 - VWR/PACEMAKER

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.

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 W. RAMER
Signature: Robert W. Ramer
Month 4 Day 12 Year 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Chester K. Weedmark
Signature: Chester K. Weedmark
Month 4 Day 12 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: C.W. Chester K. Weedmark
Signature:
Month Day Year

FACILITY

19. Discrepancy Indication Space
CHANGE MADE PER ROBERT RAMER
Lynn M. Frontado 5/2/89

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
FOR CHEMPRO

Printed/Typed Name: LYNN M. FRONTADO
Signature: Lynn M. Frontado
Month 4 Day 13 Year 89

EPA Form 8700-22 (Rev. 9-86) Previous Edition obsolete.

ORIGINAL-RETURN TO GENERATOR

7-BLS-C6

Jan

COPY

December 20, 1988

Mr. Robert W. Ramer, President
Pacemaker Industries
E. 7203 Nora Avenue
Spokane, WA 99212

Dear Mr. Ramer:

The waste sludge remaining from cleaning out your chrome tank designates as a dangerous waste (F006). This wastewater treatment sludge from your electroplating operating must be sent to a proper dangerous waste disposal facility.

I have enclosed an assistance list which will help you in locating a dangerous waste management transporter and disposal facility.

To document that the sludge has been sent off-site, send a copy of the signed and dated manifest to me at the Eastern Regional Office of the Department of Ecology.

If you have any questions, please call for assistance.

Sincerely,

Jan Brzoska
Waste Management Section

JB:adw

Enclosure

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

• P. O. BOX 11527
• E. 7203 NORA
• SPOKANE, WA 99211
• Telephone (509) 928-3456

RECEIVED
DEC - 6 1988
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

TO Wa. Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Dec. 5, 1988 Job No.
Attention Jan Brzoska
Re: ABC Lab reports

Gentlemen:

We are sending you [X] attached — [ ] under separate cover — via f/c/m the following items:

[ ] Shop Drawings [X] Submittals [ ] Plans [ ] Specifications [ ] Copy of Letters

[ ]

No. of Copies	Item Number	DESCRIPTION
1		Copy of ABC Lab no. 31997-88 re Chrome Sludge and Paint

These are transmitted as checked below:

[ ] For Approval [X] For Your Use [ ] Resubmitted [ ] Please Return ____ Copies

[ ]

Remarks:

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

RECEIVED
DEC - 6 1988
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

REPORT TO: Pacemaker Ind.
E. 7203 Nora
Spokane, WA 99212

LAB NO: 31997-88
DATE: 12-02-88
DATE REC'D: 11-07-88
P.O.#

ATTN: David

DESCRIPTION: Perform E.P. Toxicity for Heavy Metals and Total Metals on submitted sample.

TESTS		RESULTS Chrome Sludge	Paint
Arsenic, As, mg/L	liquid	0.014	<.010
Barium, Ba, mg/L		<.25	<.25
Cadmium, Cd, mg/L		0.043	0.010
Chromium, Cr, mg/L		344.5	0.019
Mercury, Hg, mg/L		<.0010	<.0010
Lead, Pb, mg/L		0.367	0.101
Selenium, Se, mg/L		<.005	<.005
Silver, Ag, mg/L		0.032	<.010
Total			
Arsenic, As, mg/kg		5.38	
Barium, Ba, mg/kg		<15	
Cadmium, Cd, mg/kg		2.93	
Chromium, Cr, mg/kg	solid	555	
Lead, Pb, mg/kg		6.96	
Mercury, Hg, mg/kg		0.0057	
Selenium, Se, mg/kg		<.005	
Silver, Ag, mg/kg		0.047	

RECEIVED
DEC 2 - 1988
PACEMAKER INDUSTRIES, INC.

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt
Manager

State of Washington
Department of Ecology

ENVIRONMENTAL COMPLAINT

DATE 12/23/88

TIME 11:30 ☐ a.m. ☐ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☑ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER _____

Region E District _____ County _____

Complaint received by Peterson

1. Does the complainant wish to remain anonymous? ☐ Yes ☐ No

2. Complaint reported by:

Name Unknown Telephone No. _____

Address _____ City _____ State _____ Zip _____

3. Date(s) of violation On-going

4. Type or kind of pollutant, if known Metals

5. Statement of problem Woman says she talked with a past employee of Pace Maker in Spokane — said that the company as an operation requiring anodizing metal — have two dip tanks. Every two months they dump the two tanks "out back" in a lot behind the business. She seemed to know what she talked about and swore to the validity of the source.

6. Alleged violator or source:

Name PaceMaker

Address _____ City _____ State _____ Zip _____

7. Where did the violation occur?: Street _____

City _____ County _____

Directions to place of incident: _____
Use reverse side for notes

Watercourse, if any _____

8. Description of damage (dead fish, etc.) _____

Referred to Jan Brzoska (Name) for investigation on 1/12/89 (Date)

(Use back of this form for sketch, map, additional notes, etc.)

ECY 010-23 Rev. 5/81

10:00 a.m.
1/12/89

Met with Robert Ramer at Pacemaker Industries. He said they have not dumped the material from their dip tank in back of their facility.

The 4 drums of h.w. were still stored at Pacemakers. Ramer had checked with Ecology Recovery Company, 16787 Beach Blvd, Huntington Beach, CA 92647. They will charge $500./drum for proper disposal. Ramer plans to check with a few other companies.

Ramer stated some one had taken his file pertaining to dangerous waste from his desk drawer. He wondered if it was the same person who was calling in the complaints.

ABC LABORATORIES
4922 E. UNION AVE.
SPOKANE, WA 99212
(509) 534-0161

RECEIVED
DEC - 6 1988
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

INVOICE NO. 7140

SOLD TO	SHIPPED TO
Pacemaker Ind.	
STREET & NO. E 7203 Nora	STREET & NO.
CITY Spokane STATE WA ZIP 99212	CITY STATE ZIP

CUSTOMER'S ORDER	SALESMAN	TERMS	F.O.B.	DATE
	31997			12-02-88

INVOICE

2	EP TOX	150	00	300	00
3	As, Hg, Se	20	00	60	00
4	Ba, Cd, Pb, Ag	10	50	42	00
1	Cr	13	50	13	50
				415	50

REDIFORM 7H 722

TELEPHONE USE REPORT

DATE: 11/14/88

TIME: 11:30

ROUTING

Jim

SUBJECT: EP Toxicity test

CALL FROM: [X] David

TO: [ ]

TELEPHONE NO.: 928-3456

CALL REC'D/ MADE BY: Jan Brzoska

SUMMARY OF CALL:

Pacemaker has sent sample of dried paint sludge from cleaning out paint stripping equipment for testing of chrome and lead contamination. ABC labs said it would take ~2 weeks.

Jan Brzoska
(Signature)

COPY

FILE

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

November 3, 1988

Mr. Robert Ramer, President
Pacemaker Industries, Inc.
E. 7203 Nora Avenue
Spokane, WA 99211

Dear Mr. Ramer:

On September 14, 1988, Jim Malm and I investigated a complaint at your facility.

At the time of the complaint investigation, we informed you that an E.P. Toxicity test for chrome and lead contamination needed to be run on the dried paint sludge from cleaning out your paint stripping equipment. We also stated that the waste sludge remaining from cleaning out your chrome tank must be sent to a proper dangerous waste disposal site.

Please send me a copy of the E.P. Toxicity test results of the paint sludge by December 1, 1988, and a copy of the manifest documenting the off-site transport of the waste sludge.

Sincerely,

Jan Brzoska
Waste Management Section

JB:adw

CERTIFIED MAIL (P 661 776 875)

State of Washington Department of Ecology

ENVIRONMENTAL COMPLAINT

DATE 9/9/88

TIME 4:45 ☐ a.m. ☒ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☒ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E. District County Spokane

Complaint received by Jan Brzoska

1. Does the complainant wish to remain anonymous? ☒ Yes ☐ No

2. Complaint reported by:

Name Anonymous Telephone No.

Address City State Zip

3. Date(s) of violation on-going for past 13 years

4. Type or kind of pollutant, if known Methyl Ethyl Ketone & Hydrochloric Acid

5. Statement of problem Cleaning out paint equipment in back of facility & burying drums of solvent in back and in field next to their building.

A PVC pipe put in the ground 5 feet down 2 years ago was eatten clear through & had to be replaced.

6. Alleged violator or source:

Name Pacemaker Industries, Inc. 928-3456

Address E. 7203 Nora Spokane WA

City State Zip

7. Where did the violation occur?: Street Above

City County

Directions to place of incident:

Use reverse side for notes

Watercourse, if any

8. Description of damage (dead fish, etc.)

Referred to Jan Brzoska for investigation on 9/14/88

Name Date

(Use back of this form for sketch, map, additional notes, etc.)

ECY 010-23 Rev. 5/81

9/14/88 9:50 a.m. Jim Malm and I met with Robert Ramer, President of Pacemaker, Inc. He said no drums of solvent or any other dangerous waste had been buried in the back of his facility or in the adjacent field. We looked at the area, but saw no sign of drums being buried. Mr. Ramer said the PVC pipe had broken in the area under the driveway and was broken due to the weight off the trucks driving over it not due to any chemicals in the ground

Pacemaker was in the process of cleaning out their paint striping equipment at the time of the investigation. They were putting dried paint sludge in 55 gallon drums. We informed them that the sludge needed EP toxic test for chrome & lead contamination

Paint thinner is used to clean out screens. The waste is put in 55 gallon drums & solvent evaporated off. Very small quantities of sludge remains & is stored in a drum.

To clean the aluminum, the article is first placed ① in a tank of caustic cleaner soap, then ② a tank of rinse water, ③ a deoxidizer (acid) tank, ④ rinse water tank ⑤ chrome tank & then ⑥ rinse tank and finally into a drying tank.

The chrome tank is cleaned out every 2 years. It is neutralized and placed in 55 gallon drums to evaporate off. To speed evaporation, the liquid is poured in a small contained area. The sludge they will send to Arlington.

The deoxidizer and soap are put into a holding tank where they are neutralized and discharged into a drain field. A water quality permit will be needed.

11/3/88 sent letter requesting EP toxicity test results and copy of manifest

ABC LABORATORIES, INC.
EAST 4922 UNION AVE.
SPOKANE, WA 99212

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

REPORT TO: Pacemaker
7203 E. Nora
Spokane, WA 99211

DESCRIPTION: Perform tests as directed on submitted sample.

LAB. NO. 1846-86

DATE: May 13, 1986

TESTS	RESULTS
Hexavalent Chromium, Cr, mg/L	0.105

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt

W.E. Burkhardt
Manager

To Whom It May Concern 5-14-86

Based on the information contained in this analysis, the levels shown above would not be regulated as Dangerous Waste under WAC 173-303.

James T. Malm

pcmkr geo.rl
6-28-94

PACEMAKER INDUSTRIES Spokane facility

NA = sample not analyzed for this constituent
ND = sample analyzed, but constituent not detected
U = sample not detected at or above the reported concentration
J = constituent positively identified, but the reported concentration is an estimate
P = constituent detected above the instrument detection limit, but below the established minimum quantitiation limit
N = spike recovery for this sample is not within control limits

6/28/94 SOIL GEOCHEMISTRY Page 1
(mg/kg)

SAMPLE DESIGNATIONS:
DW1-S, DW1-1, and DW2-S are Ecology sample splits
DW1, DW12, 2DW1, DW2, 2DW2 are Century West sample splits

DRY WELL 1 | DRY WELL 2

CONSTITUENT	DW1-S (DW1) (surface)	DW1-1 (DW12) (6" below surface)	NONE (2DW1) (surface after wet vac)	DW2-S (DW2) (surface)	NONE (2DW2) (surface after wet vac)
Arsenic	☆ 11.3N (8.1)	☆ 6.68N (6.0)	☆ NA (6.1)	☆ 12.7N (6.3)	☆ NA (9.3)
Barium	NA (1,200)	NA (93)	NA (NA)	NA (140)	NA (NA)
Cadmium	7.87 (6.1)	1.6P (ND)	NA (ND)	2P (ND)	NA (ND)
Chromium Tot	8,690 (3,600)	1,640 (2,400)	NA (380)	7,350 (6,300)	NA (350)
Lead	3,690 (4,100)	197 (250)	NA (23)	105 (120)	NA (10)
Mercury	0.525 (0.28)	0.055 (0.018)	NA (NA)	0.243 (0.52)	NA (NA)
Selenium	1.1N (0.47)	0.40UN (0.15)	NA (NA)	0.40UN (0.060	NA (NA)
Silver	1.2P (ND)	0.3UJ (ND)	NA (NA)	0.3UJ (ND)	NA (NA)
Antimony	3UJ (NA)	3UJ (NA)	NA (NA)	3UJ (NA)	NA (NA)
Beryllium	* 0.26P (NA)	0.19P (NA)	NA (NA)	* 0.34P (NA)	NA (NA)
Copper	267 (NA)	30.5 (NA)	NA (NA)	104 (NA)	NA (NA)
Nickel	29.4 (NA)	15.9 (NA)	NA (NA)	17.9 (NA)	NA (NA)
Thallium	0.50UN (NA)	0.50UN (NA)	NA (NA)	0.50UN (NA)	NA (NA)
Zinc	1,210 (NA)	207 (NA)	NA (NA)	1,950 (NA)	NA (NA)

indicates concentration of sample exceeds the most stringent MTCA soil cleanup level

* these samples exceed the MTCA soil cleanup level for beryllium, but they do not exceed natural background concentrations typically encountered in eastern Washington (generally 0.4 to 0.8 mg/kg)

☆ these samples exceed the MTCA soil cleanup level for arsenic, but do not exceed natural background concentrations typically encountered in eastern Washington (generally 5 to 10 mg/kg)

pcmkrcln.rl
6-28-94

PACEMAKER INDUSTRIES Spokane facility

C = carcinogen
NC = non-carcinogen
NE = cleanup level not established

6/28/94 MTCA SOIL CLEANUP LEVELS FOR SOIL EXPOSURE
(mg/kg)

CONSTITUENT	METHOD A	METHOD B (NC)	METHOD B (C)
Arsenic	20	60	1.43
Barium	NE	5,600	NE
Cadmium	2.0	40	NE
Chromium	100 (Tot)	400 (VI)	NE
Lead	250	NE	NE
Mercury	1.0	24	NE
Selenium	NE	400	NE
Silver	NE	240	NE
Antimony	NE	32	NE
Beryllium	NE	400	0.23
Copper	NE	2,960	NE
Nickel	NE	160	NE
Thallium salts	NE	5.6	NE
Zinc	NE	24,000	NE

indicates most stringent MTCA soil cleanup level

FILE COPY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
N. 4601 Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

June 29, 2994

Mr. Robert W. Ramer, President
Pacemaker Industries
P.O. Box 11527
Spokane, WA 99211

Dear Mr. Ramer:

I am writing in response to data submitted to our office on your behalf by Jeff Leppo of Leppo Consultants regarding the remediation of dry wells at your business. The work was conducted in partial fulfillment of Order No. DE 90-E727. The most recent data, representing samples taken after sludges and soils were removed from the drywells via wet vacuum, indicate that contamination in the drywells does not exceed applicable Model Toxics Control Act (MTCA) Method B cleanup levels. Therefore, Order No. DE 90-E727 has been fully satisfied, and no further work is required in response to that Order.

I recommend that you consider closing the drywells by backfilling and sealing them with concrete. We appreciate the work you have undertaken to resolve the issue of your drywells, including your efforts to cease all discharges and recycle rinse waters dating back to 1990.

Fulfillment of the Order referenced above is not necessarily equivalent to a MTCA approved cleanup, nor can we certify that your site is free from any contamination. The recent sample results, however, indicate that soils at the zone to which removal occurred do not pose a significant health or environmental threat. Sealing of the drywells should further protect human health and the environment. If you have any questions regarding this letter, please call me at 456-6107.

Sincerely,

Bruce F. Howard

Bruce F. Howard
Hazardous Waste & Toxics Reduction Program

BFH:ka

LEPPO CONSULTANTS INC.

JUN 30 1994
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

July 28, 1994

Washington Department of Ecology
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, Washington 99205

Attention: Bruce Howard, Keith Stoffel
Hazardous Waste/Toxics Reductions Program

Regarding: Report of Analytical Results - Second Round of Drywell Sampling
Pacemaker Industries, Inc.
WDOE Order No. DE 90-E727

Dear Gentlemen:

Leppo Consultants, Inc. on behalf of our client Pacemaker Industries, Inc. is presenting the results of the second round of soil sampling for the interior drywells at the subject site. The sampling event, laboratory analysis of samples, and data evaluation were conducted to evaluate total metals concentrations in soil and sediment within the two drywells in the rear warehouse following the remedial actions. The sampling event was planned and performed with the intent to comply with Item 5 of the Washington Department of Ecology's (WDOE) Order No.DE 90-E727 (December 6, 1990).

The second in situ verification sampling event was conducted on June 2, 1994. The sampling program was conducted according to the procedures, analytical matrix, and quality assurance and control protocol outlined in the approved Sampling and Analysis Plan. Two soil samples 2DW1 and 2DW2 were collected from the south and north drywells, respectively. Both samples were collected by grab or discrete method from the upper 0 to 6 inches of soil within the remediated interior drywell column.

The following table summarizes the analytical results. The laboratory reports are attached. The results are reported in parts per million (ppm) or mg/kg.

Drywell Analytical Results - Second Round

SAMPLE NO.	ARSENIC	CADMIUM	CHROMIUM	LEAD
2DW1	6.1	N.D.	380	23
2DW2	9.3	N.D.	350	10

Notes: ND - Not detected above laboratory method reporting limits.

Please do not hesitate to contact us if you have any questions or comment regarding this information. We look forward to a successful conclusion of the remedial actions conducted under the compliance order.

Respectfully,

LEPPO CONSULTANTS, INC.

Jeffrey E. Leppo

jl:pacdoe2d.ltr

cc: Robert W. Ramer, Pacemaker Industries, Inc.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bo" " WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spo. WA 99206-4779 (509) 924-9200 • FAX 924-9290
15055 S.W. Sequoia Parkway, Suite 110 • Portland, OR 97224-7155 (503) 624-9800 • FAX 684-3782

Leppo Consultants, Inc.	Client Project ID:	Pacemaker Industries, Phase II, #941412	Sampled:	Jun 2, 1994
E. 3810 Boone Ave. Suite 204	Sample Descript:	2DW1	Received:	Jun 2, 1994
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Jun 6, 1994
Attention: Jeffrey E. Leppo	Sample Number:	406-4007	Analyzed:	Jun 6/7, 1994
			Reported:	Jun 16, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.015	6.1
Cadmium	7130	0.8	N.D.
Chromium	7190	5.0	380
Lead	7420	7.5	23

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bo WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spo. WA 99206-4779 (509) 924-9200 • FAX 924-9290
15055 S.W. Sequoia Parkway, Suite 110 • Portland, OR 97224-7155 (503) 624-9800 • FAX 684-3782

Leppo Consultants, Inc.	Client Project ID:	Pacemaker Industries, Phase II, #941412	Sampled:	Jun 2, 1994
E. 3810 Boone Ave. Suite 204	Sample Descript:	2DW2	Received:	Jun 2, 1994
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Jun 6, 1994
Attention: Jeffrey E. Leppo	Sample Number:	406-4008	Analyzed:	Jun 6/7, 1994
			Reported:	Jun 16, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.015	9.3
Cadmium	7130	0.8	N.D.
Chromium	7190	5.0	350
Lead	7420	7.5	10

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bc WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spo. , WA 99206-4779 (509) 924-9200 • FAX 924-9290
15055 S.W. Sequoia Parkway, Suite 110 • Portland, OR 97224-7155 (503) 624-9800 • FAX 684-3782

Leppo Consultants, Inc.	Client Project ID:	Pacemaker Industries, Phase II, #941412		
E. 3810 Boone Ave. Suite 204	Sample Descript:	Method Blank		
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Jun 6, 1994
Attention: Jeffrey E. Leppo	Sample Number:	BLK40606A	Analyzed:	Jun 6/7, 1994
			Reported:	Jun 16, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.015	N.D.
Cadmium	7130	0.8	N.D.
Chromium	7190	5.0	N.D.
Lead	7420	7.5	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bc WA 98011-9508 (206) 481-9200 • FAX 485-2992
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15055 S.W. Sequoia Parkway, Suite 110 • Portland, OR 97224-7155 (503) 624-9800 • FAX 684-3782

Leppo Consultants, Inc.	Client Project ID:	Pacemaker Industries, Phase II, #941412	
E. 3810 Boone Ave. Suite 204	Sample Matrix:	Soil	
Spokane, WA 99202			Received: Jun 2, 1994
Attention: Jeffrey E. Leppo	First Sample #:	406-4007	Reported: Jun 16, 1994

TOTAL SOLIDS & MOISTURE CONTENT REPORT

Sample Number	Sample Description	Total Solids %	Moisture Content %
406-4007	2DW1	94	6.4
406-4008	2DW2	96	4.3
406-4010	SS1	93	7.1

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis.
To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.
The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bo' 'l. WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spc , WA 99206-4779 (509) 924-9200 • FAX 924-9290
15055 S.W. Sequoia Parkway, Suite 110 • Portland, OR 97224-7155 (503) 624-9800 • FAX 684-3782

Leppo Consultants, Inc.
E. 3810 Boone Ave. Suite 204
Spokane, WA 99202
Attention: Jeffrey E. Leppo

Client Project ID: Pacemaker Industries, Phase II, #941412
Sample Matrix : Soil
Units: mg/kg (ppm)

Analyst: G. B. Holte

Digested: Jun 6, 1994
Reported: Jun 16, 1994

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Arsenic	Cadmium	Chromium	Lead
EPA Method:	7061	7130	7190	7420
Date Analyzed:	6/7/94	6/7/94	6/7/94	6/7/94
ACCURACY ASSESSMENT				
LCS Spike Conc. Added:	0.005	1.00	10.0	10.0
LCS Spike Result:	0.00472	0.911	8.82	10.3
LCS Spike % Recovery:	94.4	91.1	88.2	103
Upper Control Limit:	120	120	120	120
Lower Control Limit:	80	80	80	80
Matrix Spike Sample #:	406-4044	406-4044	406-4044	406-4044
Matrix Spike % Recovery:	Q3	84.1	91.6	122
PRECISION ASSESSMENT				
Sample #:	406-4010	406-4044	406-4044	406-4044
Original:	5.00	1.90	23.1	88.8
Duplicate:	5.34	1.67	20.5	71.9
Relative % Difference:	6.58	Q5	Q5	21.0

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

Please Note:
Q3: The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample. Q5: Relative Percent Difference values are not reported at sample concentrations less than ten times the Reporting Limit.

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 98206-4779 (509) 924-9200 FAX 924-9290 ✓
15055 S.W. Sequoia Parkway, Suite 110, Portland, OR 97224-7155 (503) 624-9800 FAX 684-3782

CHAIN OF CUSTODY REPORT

CLIENT: Pacemaker Industries, Inc.
ADDRESS: P.O. Box 11527
E. 7203 Nora Ave.
Spokane, WA 99211
PHONE: 928-3456 FAX:

REPORT TO: Jeff Leppo
Leppo Consultants, Inc.
BILLING TO: Pacemaker Industries
P.O. NUMBER: 941412
NCA QUOTE #: SP406003

SAME DAY RUSH	(+150%)	
NEXT BUSINESS DAY RUSH	(+100%)	
2 BUSINESS DAY RUSH	(+80%)	
3 BUSINESS DAY RUSH	(+60%)	
5 BUSINESS DAY RUSH	(+40%)	
10 BUSINESS DAY STANDARD	(LIST PRICE)	✓
5 BUS. DAY HYDROCARBONS	(LIST PRICE)	

PROJECT NAME: Pacemaker Industries, Phase II
PROJECT NUMBER: 941412
SAMPLED BY: Jeff Leppo

SAMPLE IDENTIFICATION: (NUMBER OR DESCRIPTION)	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.	Total Metals (4)	Total Metals (8)	AWTP Local Limits	COMMENTS & PRESERVATIVES USED	NORTH CREEK SAMPLE NUMBER
1. 2DW1	6/2 - 0900	S	2	✓				406-4007
2. 2DW2	6/2 - 0930	S	2	✓				4008
3. RW1	6/2 - 0830	W	2			✓	Call w/questions to LCI	4009
4. SS1	6/2 - 0930	S	2		✓			4010
5.								
6.								
7.								
8.								
9.								
10.								

RELINQUISHED BY: Jeff Leppo	DATE: 6/2/94	RECEIVED BY: [illegible]	DATE: 6-2-94
FIRM: LCI	TIME: 1045	FIRM: NCA	TIME: 1050
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
FIRM:	TIME:	FIRM:	TIME:

ADDITIONAL REMARKS: 4 Total Metals - Arsenic, Cadmium, Chromium, Lead / 8 Total Metals - Priority Pollutant Group
City of Spokane Advanced Wastewater Treatment Local Discharge Limits - 9 Total Metals, Cyanide, FOG, PH, React.

PAGE 1 OF 1

WASHINGTON STATE DEPARTMENT OF ECOLOGY

TELEPHONE RECORD

Date 6/13/94

Time 900 ☒ a.m. ☐ p.m.

FILE COPY

☒ CALLED BY
☐ CALLED

Mr./Ms. Jeff Leppo

Telephone 509/535-7225

Address Leppo Consultants
Spokane

Representing Pacemaker Industries

Project Site assessment at Pacemaker

Discussed

- Jeff indicated that the two drywells at the facility had been cleaned out (by Pacemaker) by high pressure washing & simultaneous wet vacuuming. Jeff believes that the concrete structures (the drywells themselves) are probably reasonably clean now.
  18" to 24" of soil were blasted from the bottom of the drywells during the remedial work. Both the rinsewater and sludge/soil were collected for profiling purposes.
  Two soil samples were also collected for analysis of arsenic, cadmium, chromium, and lead only.
- Lab results of Phase II soil samples are expected any day. Jeff promised he would send Ecology results ASAP.
- A decision will then be made (in consultation w/ Ecology) on how to proceed at Pacemaker.

Signed Keith L. Stoffel

ECY 010-46(b) Rev 8/91

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
MANCHESTER ENVIRONMENTAL LABORATORY
7411 Beach Drive East • Port Orchard, Washington 98366-8204 • (206) 871-8860 • SCAN 871-8860

RECEIVED
JUN - 9 1994
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

FILE COPY

June 6, 1994

TO: Keith Stoffel

FROM: Bill Kammin, Environmental_Lab_Director BK

SUBJECT: Metals Quality Assurance memo for the Pacemaker Soils Project

SAMPLE INFORMATION

These samples from the Pacemaker project were received by the Manchester Laboratory on 4/23/94 in good condition.

HOLDING TIMES

All analyses were performed within the USEPA Contract Laboratory Program (CLP) holding times for metals analysis (28 days for mercury, 180 days for all other metals).

INSTRUMENT CALIBRATION

Instrument calibration was performed before each analytical run and checked by initial calibration verification standards and blanks. Continuing calibration standards and blanks were analyzed at a frequency of 10% during the run and again at the end of the analytical run. All initial and continuing calibration verification standards were within the relevant USEPA (CLP) control limits. AA calibration gave a correlation coefficient (r) of 0.995 or greater, also meeting CLP calibration requirements.

PROCEDURAL BLANKS

The procedural blanks associated with these samples showed no analytically significant levels of analytes.

SPIKED SAMPLE ANALYSES

Spike and duplicate spike sample analyses were performed on this data set. All spike recoveries were within the CLP acceptance limits of +/- 25%, with the following exceptions: arsenic, selenium, and thallium. Results for these analytes are qualified with N.

PRECISION DATA

The results of the spike and duplicate spike samples were used to evaluate precision on this sample set. The Relative Percent Difference (RPD) for all analytes was within the 20% CLP acceptance window for duplicate analysis.

LABORATORY CONTROL SAMPLE (LCS) ANALYSES

LCS analyses were within the windows established for each parameter, with the following exceptions: silver and antimony. Results for these analytes are qualified with J, denoting estimated values.

SUMMARY

The data generated by the analysis of these samples can be used noting the data qualifications discussed in this memo.

Please call Bill Kammin at SCAN 206-871-8801 to further discuss this project.

WRK:wrk

Washington State Department of Ecology
Sample/Project Analysis Results

Project: DOE-090X PACEMAKER

Officer: KES

Account: M2160

Laboratory: Ecology, Manchester

Sample No: 94 178000

Description: DW1-S

Source: Sludge (General)

Begin Date: 94/04/27 :

Metals - Specified		Sediment Result	Units
Mercury	Hg-Sedmt	0.525 *	mg/kg-wt

Metals - PP		Sediment Result	Units
Arsenic	As-Sedmt	11.3N*	mg/kg-dr
Selenium	Se-Sedmt	1.1N*	mg/kg-dr
Thallium	Tl-Sedmt	0.50UN	mg/kg-dr

Metals - PP Matrix Spike #1		Sediment Result	Units
Arsenic	As-Sedmt	50	% Recov
Selenium	Se-Sedmt	66	% Recov
Thallium	Tl-Sedmt	46	% Recov

Metals - PP Matrix Spike #2		Sediment Result	Units
Arsenic	As-Sedmt	58	% Recov
Selenium	Se-Sedmt	64	% Recov
Thallium	Tl-Sedmt	43	% Recov

Metals - ICP Scan		Sediment Result	Units
Arsenic	As-Sedmt	3U	mg/kg-dr
Berylium	Be-Sedmt	0.26P*	mg/kg-dr
Cadmium	Cd-Sedmt	7.87 *	mg/kg-dr
Chromium	Cr-Sedmt	8690 *	mg/kg-dr
Copper	Cu-Sedmt	267 *	mg/kg-dr
Lead	Pb-Sedmt	3690 *	mg/kg-dr
Nickel	Ni-Sedmt	29.4 *	mg/kg-dr
Silver	Ag-Sedmt	1.2P*	mg/kg-dr
Zinc	Zn-Sedmt	1210 *	mg/kg-dr
Antimony	Sb-Sedmt	3UJ	mg/kg-dr

Metals - ICP Scan Matrix Spike #1		Sediment Result	Units
Arsenic	As-Sedmt	79	% Recov
Berylium	Be-Sedmt	84	% Recov
Cadmium	Cd-Sedmt	82	% Recov
Chromium	Cr-Sedmt	NAR	% Recov
Copper	Cu-Sedmt	104	% Recov
Lead	Pb-Sedmt	NAR	% Recov
Nickel	Ni-Sedmt	82	% Recov
Silver	Ag-Sedmt	89	% Recov
Zinc	Zn-Sedmt	NAR	% Recov
Antimony	Sb-Sedmt	78	% Recov

Metals - ICP Scan Matrix Spike #2		Sediment Result	Units
Arsenic	As-Sedmt	79	% Recov
Berylium	Be-Sedmt	84	% Recov
Cadmium	Cd-Sedmt	83	% Recov
Chromium	Cr-Sedmt	NAR	% Recov
Copper	Cu-Sedmt	136	% Recov
Lead	Pb-Sedmt	NAR	% Recov
Nickel	Ni-Sedmt	85	% Recov
Silver	Ag-Sedmt	91	% Recov
Zinc	Zn-Sedmt	NAR	% Recov
Antimony	Sb-Sedmt	80	% Recov

(Sample Complete)

Project: DOE-090X PACEMAKER

Officer: KES Account: M2160

Laboratory: Ecology, Manchester

Sample No: 94 178001 Description: DW1-1 Source: Sediment (General)

Begin Date: 94/04/27 :

Metals - Specified		Sediment Result	Units
Mercury	Hg-Sedmt	0.055 *	mg/kg-wt

Metals - PP		Sediment Result	Units
Arsenic	As-Sedmt	6.68N*	mg/kg-dr
Selenium	Se-Sedmt	0.40UN	mg/kg-dr
Thallium	Tl-Sedmt	0.50UN	mg/kg-dr

Metals - ICP Scan		Sediment Result	Units
Arsenic	As-Sedmt	3U	mg/kg-dr
Berylium	Be-Sedmt	0.19P*	mg/kg-dr
Cadmium	Cd-Sedmt	1.6P*	mg/kg-dr
Chromium	Cr-Sedmt	1640 *	mg/kg-dr
Copper	Cu-Sedmt	30.5 *	mg/kg-dr
Lead	Pb-Sedmt	197 *	mg/kg-dr
Nickel	Ni-Sedmt	15.9 *	mg/kg-dr
Silver	Ag-Sedmt	0.3UJ	mg/kg-dr
Zinc	Zn-Sedmt	207 *	mg/kg-dr
Antimony	Sb-Sedmt	3UJ	mg/kg-dr

(Sample Complete)

Project: DOE-090X PACEMAKER

Officer: KES Account: M2160

Laboratory: Ecology, Manchester

Sample No: 94 178002 Description: DW2-S Source: Sludge (General)

Begin Date: 94/04/27 :

Metals - Specified		Sediment Result	Units
Mercury	Hg-Sedmt	0.243 *	mg/kg-wt

Metals - Specified Matrix Spike #1		Sediment Result	Units
Mercury	Hg-Sedmt	116	% Recov

Metals - Specified Matrix Spike #2		Sediment Result	Units
Mercury	Hg-Sedmt	96	% Recov

Metals - PP		Sediment Result	Units
Arsenic	As-Sedmt	12.7N*	mg/kg-dr
Selenium	Se-Sedmt	0.40UN	mg/kg-dr
Thallium	Tl-Sedmt	0.50UN	mg/kg-dr

Metals - ICP Scan		Sediment Result	Units
Arsenic	As-Sedmt	3U	mg/kg-dr
Berylium	Be-Sedmt	0.34P*	mg/kg-dr
Cadmium	Cd-Sedmt	2P*	mg/kg-dr
Chromium	Cr-Sedmt	7350 *	mg/kg-dr
Copper	Cu-Sedmt	104 *	mg/kg-dr
Lead	Pb-Sedmt	105 *	mg/kg-dr
Nickel	Ni-Sedmt	17.9 *	mg/kg-dr
Silver	Ag-Sedmt	0.3UJ	mg/kg-dr
Zinc	Zn-Sedmt	1950 *	mg/kg-dr
Antimony	Sb-Sedmt	3UJ	mg/kg-dr

(Sample Complete)

Project: DOE-090X PACEMAKER

Officer: KES

Account: M2160

Blank ID: ESPB 18.30

Metals - PP Blank #1		Sediment Result	Units
Arsenic	As-Sedmt	0.30U	mg/kg-dr
Selenium	Se-Sedmt	0.40U	mg/kg-dr
Thallium	Tl-Sedmt	0.50U	mg/kg-dr

Metals - ICP Scan Blank #1		Sediment Result	Units
Arsenic	As-Sedmt	3U	mg/kg-dr
Berylium	Be-Sedmt	0.1U	mg/kg-dr
Cadmium	Cd-Sedmt	0.3U	mg/kg-dr
Chromium	Cr-Sedmt	0.55P*	mg/kg-dr
Copper	Cu-Sedmt	0.3U	mg/kg-dr
Lead	Pb-Sedmt	2U	mg/kg-dr
Nickel	Ni-Sedmt	1U	mg/kg-dr
Silver	Ag-Sedmt	0.3U	mg/kg-dr
Zinc	Zn-Sedmt	0.4U	mg/kg-dr
Antimony	Sb-Sedmt	3U	mg/kg-dr

(Sample Complete)

Project: DOE-090X PACEMAKER

Officer: KES

Account: M2160

Blank ID: ESPB 19.31

Metals - Blank #1	ICP Scan	Sediment Result	Units
Arsenic	As-Sedmt	3U	mg/kg-dr
Berylium	Be-Sedmt	0.1U	mg/kg-dr
Cadmium	Cd-Sedmt	0.3U	mg/kg-dr
Chromium	Cr-Sedmt	0.67P*	mg/kg-dr
Copper	Cu-Sedmt	0.51P*	mg/kg-dr
Lead	Pb-Sedmt	2U	mg/kg-dr
Nickel	Ni-Sedmt	1.8P*	mg/kg-dr
Silver	Ag-Sedmt	0.3U	mg/kg-dr
Zinc	Zn-Sedmt	3.9P*	mg/kg-dr
Antimony	Sb-Sedmt	3U	mg/kg-dr

(Sample Complete)

MW-1

- well purged of approx 10 gallons
- pump set at bottom of hole at 19'
- water level measurement was 6.2' before pumping
- pH = 7.0 when sample collected
- sample collected at 1530
  + ½ gallon for pesticides
  + ½ gallon for herbicides
  + 1 gallon for "others"
    - simazine
    - terbutryn
    - metribuzin
    - diuron
    - linuron
    - triallate
    - trifluralin
    - glyphosate

Left site at 1545.

April 27, 1993 Sunny 60's

PACEMAKER INDUSTRIES
Spokane facility

IN: 915
OUT: 1130

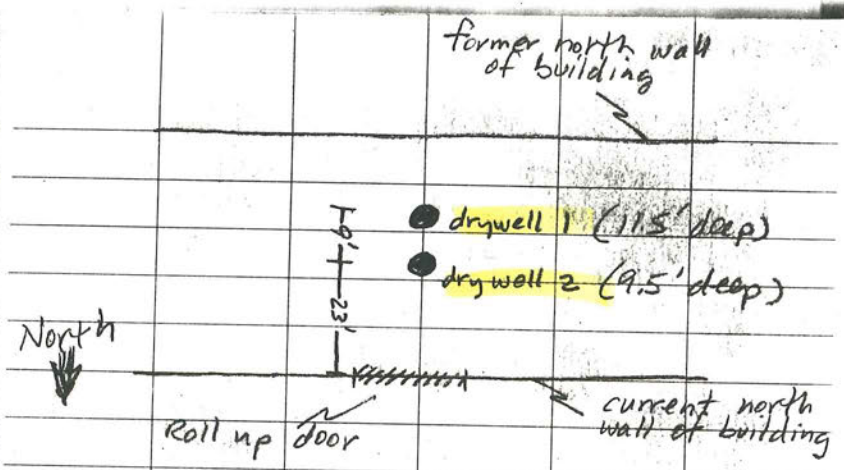
Purpose:
Soil sampling from dry wells currently used for discharge of chrome line process waters.

Participants:
Jeff Leppo } Leppo & Associates
Scott ?? }
Bob Ramer PMI
Keith Stoffel, Ecology

Jeff Scott & Keith collected sludge and native soil samples from two dry wells located on north side of the facility.
Dry wells are currently inside the facility and surrounded by concrete pavement (see map on next page)
Prior to facility expansion, these wells were located outside and were surrounded by gravel parking lot.

PACEMAKER INDUSTRIES
SOIL SAMPLING
April 27, 1993

COPY



Three samples well collected:

- DW1-S from drywell 1 is sludge from surface of drywell bottom
- DW1-1 from drywell 1 is native sediment from approx 6"-12" below surface of drywell bottom
- DW2-S from drywell 2 is sludge from surface of drywell bottom.

Sludge samples DW1-S and DW2-S were collected by hammering a 1" diameter steel pipe (approx 15' long) into the surface sludge, pulling the pipe to the surface, and scraping and hammering the pipe to remove all sludge from the pipe. This process was repeated many times to obtain sufficient sludge for a sample. Those samples are composites.

Sediment sample DW1-1 was collected by Jeff Lepo. Jeff descended a ladder to the bottom of the drywell and dug with a shovel to the sampling depth.

The walls of drywell 2 were coated from bottom to top with a bright green residue, which is presumably a chromium compound. The surface of the bottom of drywell 2 contains several inches of a green sludge. The sludge was damp to wet on the day of sample collection.

The walls of drywell 1 was only coated in places with the bright green residue. The surface of the bottom of drywell 1 also contained some green sludge, but it was not as thick or as extensive as in drywell 2. Some of the sludge in drywell 1 was bright green, but the green sludge more as clots or blobs.

The drainpipes leading into both drywells were partially filled w/ bright green sludge.

COPY

Approved by: [illegible]

Pre-Sampling Notification

FILE COPY

Project Name: Pacemaker PIC: M2160

Requested by: Keith Stoffel Sampling Date(s): 4/27/94

Program: HWTRP Date to Lab: 4/28/94

Scan No. 545-3176 Sample Pickup Location: Manchester

- ☒ Monitoring
- ☐ Emergency
- ☐ Class II
- ☐ Preliminary Invest.
- ☐ Special turnaroun

General Chemistry	W	S	O	Microbiology	W	S	O	Organic Chemistry	W	S	O
Alkalinity				Fecal Coliforms ☐ MF ☐ MPN				Base/Neutral/Acids (BNA)			
Conductivity				Total Coliforms				Polynuclear Aromatics (PAH)			
Hardness				E-Coli							
pH				%Klebsiella				Volatile Organic Analysis (VOA)			
Turbidity								BTEX			
Fluoride											
☐ Chloride ☐ Sulfate								Organochlorine Pesticides/PCB's			
				Biology				Organochlorine Pesticides only			
Cyanide ☐ Total ☐ Dissociable				Ceriodaphnia ☐ Acute ☐ Chron				PCB's only			
Chlorophyll				Daphnia magna ☐ Acute ☐ Chron				Organophosphorous Pests			
Total Solids				Daphnia pulex ☐ Acute ☐ Chron				Chlorophenoxy Herbicides			
Total Nonvolatile Solids				Fathead minnow ☐ Acute ☐ Chron							
Total Suspended Solids				Microtox							
Total Nonvolatile Suspended				Salmonid Effluent (NPDES)							
Total Dissolved Solids				Salmonid Hazardous Waste				WTPH-HCID			
% Solids								WTPH-G			
% Volatile Solids								WTPH-D			
				Metals	W_D	W_{TR}	S	O	WTPH-418.1 Modified		
Total Organic Carbon				ICP Scan							
Bio Oxygen Demand (5 day)				Priority Pollutant Metals			3		TCLP-VOA		
Oil & Grease									TCLP-BNA		
									TCLP-Herbicides		
									TCLP-Pesticides		
Ammonia				TCLP metals							
Nitrate-Nitrite				Cd Cr Cu Ni Pb Zn							
Total Phosphorous				Mercury (Hg)				BNA screen			
Orthophosphorous				List individually:				AED screen			
Nitrate											
Nitrite											
☐ TPN ☐ TKN				Asbestos							

Comments: Total metals

Enter the number of samples in the appropriate box(es) above

W= water S= soil/sediment O= other (please specify)
W_{TR}= water total recoverable W_D= water dissolved

ECY 040-2-62 (Rev. 12/93)

$ 1,375

LABORATORY ANALYSES REQUIRED

Page ___ of ___

Project Name: Pacemaker

PIC: MZ160

Send Results to: Keith Stoffel **Mail Stop:** ERO

- ☐ Preliminary Investigation
- ☒ Monitoring
- ☐ For HW Designation
- ☐ For NPDES

Results needed by ______________

Sampling — Year: 94

Mo	Da	Hr	Mn	Field Station Identification	Lab Sample Number (Total Metals)	Matrix Code	Source Code	No. of Containers	Metals (☒ Total ☐ Total Rec): PP Metals
04	27	10	00	DW1-S	1780000	45	44	1	X
04	27	10	30	DW1-1	〃 01	40	40	1	X
04	27	11	10	DW2-S	〃 02	45	44	1	X

General Chemistry: Alkalinity, Conductivity, Hardness, pH, Turbidity, ☐ Chloride ☐ Sulfate, Cyanide ☐ Total ☐ Weak, Total Solids, Total Nonvolatile Solids, Total Suspended Solids, Total Nonvol Suspend, Total Dissolved Solids, ☐ %Solids ☐ %Vol. Solids, TOC, BOD (5 day), Oil & Grease, Ammonia, Nitrate-Nitrite, Total Phosphorous, Orthophosphorous, Nitrate, Nitrite, ☐ TPN ☐ TKN

Micro: Fecal Coliforms ☐ MF ☐ MPN, Total Coliforms, E-Coli, %Klebsiella

Biology: Ceriodaphnia ☐ acute ☐ chron, D magna ☐ acute ☐ chron, D pulex ☐ acute ☐ chron, Fathead minnow, Microtox, Salmonid, Salmonid Haz Waste

Metals: ☒ Total ☐ Total Rec — ICP Scan, PP Metals, TCLP Metals, Cd Cr Cu Ni Pb Zn, Mercury (Hg)

Organic Chemistry: BNA ☐ CLP TIC's ☐ No TIC's, BNA w/ extensive TIC's, PAH's, VOA ☐ CLP TIC's ☐ No TIC's, VOA w/ extensive TIC's, BTEX, Organo Chlorine Pests/PCB's, PCB's only, Organophosphorous Pests, Chlorophenoxy Herbs, WTPH-HCID, WTPH-G, WTPH-D, WTPH-418.1 Modified, AED screen

Project Officer: Keith Stoffel

Scan number: 545-3176

Samplers: Keith Stoffel, Jeff Lezzo

Recorder: ______________

Date: 4/27/94

Chain of Custody Record

Relinquished By:	Received By:	Yr	Mo	Da	Hr	Mn	Seal I.D.	Condition of Seals	Comments
Keith L Stoffel									
	Pam Carey	94	04	28	11	30			

Comments:

ECY 040-115 Rev. 12/93

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Meeting Notes

~~TELEPHONE RECORD~~

FILE COPY

Date 5/27/94

Time 10 ☒ a.m. ☐ p.m.

☐ CALLED BY
☐ CALLED

Mr./Ms. _____ Telephone _____

Address _____

Participants: Bob Ramer, PCI
Jeff Leppo, Leppo Consultants
Keith Stoffel, Bruce Howard, Jim Malm } Ecology

Project PACEMAKER INDUSTRIES INC.

Discussed Leppo report summarizing the drywell sludge and soil sampling conducted in April 94. (see attached letter w/ geochemistry data).

- Ecology stated that the data indicates that the drywells contain some sludge & soil that contain concentrations of arsenic, cadmium, chromium and/or lead which exceed MTCA soil cleanup levels. (see attachment)
- Ecology expressed concern that the lateral and vertical extent of the contamination is unknown. Therefore, additional soil sampling must be conducted.
- Leppo & Pacemaker indicated that finances to proceed w/ additional site characterization/remediation work are sparse. They will however proceed w/ some additional work without any additional ORDER from Ecology.

Signed Keith L Stoffel

ECY 010-46(b) Rev 8/91

LEPPO CONSULTANTS INC.

COPY

May 12, 1994

Washington Department of Ecology
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, Washington 99205

RECEIVED MAY 16 1994 DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE

Attention: Bruce Howard, Keith Stoffel
Hazardous Waste/Toxics Reductions Program

Regarding: Report of Analytical Results - Drywell Sampling
Pacemaker Industries, Inc.
WDOE Order No. DE 90-E727

Dear Gentlemen:

COMMENTS

- Arsenic Method B (C) cleanup level is 1.43 mg/kg
- There is no Method B cleanup level for lead (no RFD)

- DW1 contains arsenic, cadmium, chromium and lead above most stringent soil cleanup levels
- DW12 contains arsenic & chromium above soil cleanup levels
- DW2 contains arsenic & chromium above soil cleanup levels

Leppo Consultants, Inc. o ... e
results of the sampling pr ... e
sampling event, laborator ... o
evaluate total metals conce ... r
warehouse. The sampling ... h
Item 5 of the Washington D ... r
6, 1990).

A Sampling and Analysis P ... il
25, 1994. The SAP was a ... g
event was subsequently co ... .
The sampling program wa ... l
matrix, and quality assurar ... control protocol outlined in the SAP.

Two soil/sediment samples, DW1 and DW12, were collected from the south drywell designated DW1. DW1 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment within the interior drywell column. DW12 was composited from sample points at approximately 6 to 12 inches below the drywell soil/sediment surface. One soil/sediment sample, DW2, was collected from the north drywell designated DW2. DW2 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment.

The following table summarizes the analytical results. The laboratory reports are attached. The results are reported in parts per million (ppm) or mg/kg. The data is presented with the Model Toxics Control Act (MTCA) (Chapter 173-340 WAC) Method A and Method B Non-Carcinogen (NC) Soil Cleanup Levels for soil exposure according to your April 26, 1994 letter. The Method B Cleanup Levels have been corrected to reflect the non-carcinogen standard.

LEPPO CONSULTANTS INC.

COPY

May 12, 1994

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RECEIVED
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EASTERN REGIONAL OFFICE

Attention: Bruce Howard, Keith Stoffel
Hazardous Waste/Toxics Reductions Program

Regarding: Report of Analytical Results - Drywell Sampling
Pacemaker Industries, Inc.
WDOE Order No. DE 90-E727

Dear Gentlemen:

Leppo Consultants, Inc. on behalf of our client Pacemaker Industries, Inc. is presenting the results of the sampling program completed for the interior drywells at the subject site. The sampling event, laboratory analysis of samples, and data evaluation were conducted to evaluate total metals concentrations in soil and sediment within the two drywells in the rear warehouse. The sampling event was planned and performed with the intent to comply with Item 5 of the Washington Department of Ecology's (WDOE) Order No.DE 90-E727 (December 6, 1990).

A Sampling and Analysis Plan (SAP) was submitted for WDOE review and approval on April 25, 1994. The SAP was approved per your April 26, 1994 correspondence. The sampling event was subsequently conducted on April 27, 1994 with WDOE personnel in attendance. The sampling program was conducted under the according to the procedures, analytical matrix, and quality assurance and control protocol outlined in the SAP.

Two soil/sediment samples, DW1 and DW12, were collected from the south drywell designated DW1. DW1 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment within the interior drywell column. DW12 was composited from sample points at approximately 6 to 12 inches below the drywell soil/sediment surface. One soil/sediment sample, DW2, was collected from the north drywell designated DW2. DW2 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment.

The following table summarizes the analytical results. The laboratory reports are attached. The results are reported in parts per million (ppm) or mg/kg. The data is presented with the Model Toxics Control Act (MTCA) (Chapter 173-340 WAC) Method A and Method B Non-Carcinogen (NC) Soil Cleanup Levels for soil exposure according to your April 26, 1994 letter. The Method B Cleanup Levels have been corrected to reflect the non-carcinogen standard.

Drywell Analytical Results

TOTAL METAL	DW1 0 TO 6 IN.	DW12 6 TO 12 IN.	DW2 0 TO 6 IN.	MTCA METHOD A LEVEL	MTCA METHOD B LEVEL (NC)	method B (C)
Arsenic	8.1	6.0	6.3	20	60	1.43
Barium	1200	93	140	NE	5600	NE
Cadmium	6.1	ND	ND	2.0	40	NE
Chromium	3600	2400	6300	100 (Total)	80000 (III)	NE
Chromium VI	ND	-	ND	NE	400 (VI)	NE
Lead	4100	250	120	250	~~400~~	NE
Mercury	0.28	0.018	0.52	1.0	24	NE
Selenium	0.47	0.15	0.060	NE	400	NE
Silver	ND	ND	ND	NE	240	NE

Notes: ND - Not detected above laboratory method reporting limits.
NE - No cleanup level established.

Pacemaker Industries, Inc. has submitted a SAP, conducted sampling of drywell soil/sediment, and presented the data for your review. Based on these and other compliance measures undertaken by Pacemaker Industries, Inc., it is our professional opinion that appropriate actions have been completed to meet the conditions of Order No. DE 90-E727.

Pacemaker Industries, Inc. looks forward to receiving your positive response to their actions. We are interested in meeting with you for discussion of potential remedial actions and MTCA compliance issues. Please do not hesitate to contact us if you have any questions, comments, or to arrange a meeting.

Respectfully,

LEPPO CONSULTANTS, INC.

Jeffrey E. Leppo
Principal

jl:pacdoeltr.rpt

cc: Robert W. Ramer, Pacemaker Industries, Inc.

FILE COPY

Stoffel, Keith L.

From: Robb, Stephen D.
To: Stoffel, Keith L.
Subject: FW: Gleanings about Chrome III and Chrome VI
Date: Fri, May 20, 1994 11:43AM
Priority: High

Here are some things Dick looked up. He is right about the 100X groundwater, that could be the hook to go lower than 8,000 ppm. I was in error in assuming Cr+3 is not soluble, much of it is. So what I said about looking for dissolved Cr only applies in the sense that such Cr, whether +3 or +6 would be mobile. I haven't heard back from Craig yet, I don't know if I will but I'll pass on anything I get. I updated Dick's note a little, I think it will all go through.

From: Boose, Richard B
To: McCormack, Craig; Robb, Stephen D.
Subject: Gleanings about Chrome III and Chrome VI
Date: Thursday, May 19, 1994 4:46PM

According to ATSDR and Casarett & Doul's Toxicology the known harmful effects in humans is probably attributable to hexavalent chrome although the situation is confusing because nearly all Cr+6 is changed to Cr+3 by the body before it is eliminated in the urine.. Cr+3 is poorly absorbed by the intestine and other cellular barriers although some is absorbed to meet nutrition requirements.

EPA has set a drinking water level of Cr+3 and Cr+6 at 100 ppb (SR: see March 1994 CLARC2 update) whereas MTCA says 50 ppb (total Cr--could be +3 and/or +6) for method A and 80 ppb (Cr+6) for Method B. If ground water is at risk then Ecology should stand firm for one hundred times one of the MTCA ground water levels to set a soil clean up criteria for the site. (SR: thus I'd say you can go 100 X 100 ppb =10 ppm even for Cr+3 in soil)

A quick and dirty test for Cr+6 in soil is to simply add some soil to a test tube of water where in 8000 ppm should be tinted red, pink or orange. At least one company sells kits for do-it-yourself Cr+6 soil testing. Also tinted surface water would be tale-tale.

FACSIMI E INFORMATIO SHEET

North Creek Analytical
East 11115 Montgomery, Suite B
Spokane, WA 99206
Voice phone: (509) 924-9200 Facs phone: (509) 924-9290

FILE COPY

Date: 5-19-94

NORTH CREEK ANALYTICAL

Pages following: 7

To: Keith Stoffel	Phone:
Company: DOE	Facs: 456-6175

From: Scott Armand

COMMENTS

Pursuant to Jeff Leppo's request of Leppo Consultants, Inc. I am sending you the methodology for Chromium, Hexavalent from SW-846 (7196). This is the method North Creek Analytical used for DW1 and DW2 from Pacemaker Industries.

Regards,

Scott

If the number of pages designated is not received or the trasmission of any part of this facsimile is not legible, please call (509) 924-9200.

F A C S I M I L E I N F O R M A T I O N S H E E T

orth Creek Analytical
East 11115 Montgomery, Suite B
Spokane, WA 99206
Voice phone: (509) 924-9200 Facs phone: (509) 924-9290

Date:	Pages following:

NORTH CREEK ANALYTICAL

To:	Phone:
Company:	Facs:

From:

C O M M E N T S

If the number of pages designated is not received or the trasmission of any part of this facsimile is not legible, please call (509) 924-9200.

METHOD 7196

CHROMIUM, HEXAVALENT (COLORIMETRIC)

1.0 SCOPE AND APPLICATION

1.1 Method 7196 is used to determine the concentration of dissolved hexavalent chromium [Cr(VI)] in Extraction Procedure (EP) toxicity characteristic extracts and ground waters. This method may also be applicable to certain domestic and industrial wastes, provided that no interfering substances are present (see Paragraph 3.1 below).

1.2 Method 7196 may be used to analyze samples containing from 0.5 to 50 mg of Cr(VI) per liter.

2.0 SUMMARY OF METHOD

2.1 Dissolved hexavalent chromium, in the absence of interfering amounts of substances such as molybdenum, vanadium, and mercury, may be determined colorimetrically by reaction with diphenylcarbazide in acid solution. A red-violet color of unknown composition is produced. The reaction is very sensitive, the absorbancy index per gram atom of chromium being about 40,000 at 540 nm. Addition of an excess of diphenylcarbazide yields the red-violet product, and its absorbance is measured photometrically at 540 nm.

3.0 INTERFERENCES

3.1 The chromium reaction with diphenylcarbazide is usually free from interferences. However, certain substances may interfere if the chromium concentration is relatively low. Hexavalent molybdenum and mercury salts also react to form color with the reagent; however, the red-violet intensities produced are much lower than those for chromium at the specified pH. Concentrations of up to 200 mg/L of molybdenum and mercury can be tolerated. Vanadium interferes strongly, but concentrations up to 10 times that of chromium will not cause trouble.

3.2 Iron in concentrations greater than 1 mg/L may produce a yellow color, but the ferric iron color is not strong and difficulty is not normally encountered if the absorbance is measured photometrically at the appropriate wavelength.

4.0 APPARATUS AND MATERIALS

4.1 Colorimetric equipment: One of the following is required: Either a spectrophotometer, for use at 540 nm, providing a light path of 1 cm or longer, or a filter photometer, providing a light path of 1 cm or longer and equipped with a greenish-yellow filter having maximum transmittance near 540 nm.

5.0 REAGENTS

5.1 ASTM Type II water (ASTM D1193): Water should be monitored for impurities.

5.2 Potassium dichromate stock solution: Dissolve 141.4 mg of dried potassium dichromate, $K_2Cr_2O_7$ (analytical reagent grade), in Type II water and dilute to 1 liter (1 mL = 50 ug Cr).

5.3 Potassium dichromate standard solution: Dilute 10.00 mL potassium dichromate stock solution to 100 mL (1 mL = 5 ug Cr).

5.4 Sulfuric acid, 10% (v/v): Dilute 10 mL of distilled reagent grade or spectrograde quality sulfuric acid, H_2SO_4, to 100 mL with Type II water.

5.5 Diphenylcarbazide solution: Dissolve 250 mg 1,5-diphenylcarbazide in 50 mL acetone. Store in a brown bottle. Discard when the solution becomes discolored.

5.6 Acetone (analytical reagent grade): Avoid or redistill material that comes in containers with metal or metal-lined caps.

6.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

6.1 All samples must have been collected using a sampling plan that addresses the considerations discussed in Chapter Nine of this manual.

6.2 Since the stability of Cr(VI) in EP extracts is not completely understood at this time, the analysis should be carried out as soon as possible.

6.3 To retard the chemical activity of hexavalent chromium, the samples and extracts should be stored at 4°C until analyzed. The maximum holding time prior to analysis is 24 hr.

7.0 PROCEDURE

7.1 Color development and measurement: Transfer 95 mL of the extract to be tested to a 100-mL volumetric flask. Add 2.0 mL diphenylcarbazide solution and mix. Add H_2SO_4 solution to give a pH of 2 ± 0.5, dilute to 100 mL with Type II water, and let stand 5 to 10 min for full color development. Transfer an appropriate portion of the solution to a 1-cm absorption cell and measure its absorbance at 540 nm. Use Type II water as a reference. Correct the absorbance reading of the sample by subtracting the absorbance of a blank carried through the method (see Note below). An aliquot of the sample containing all reagents except diphenyl semicarbazide should be prepared and used to correct the sample for turbidity (i.e., a turbidity blank). From the

corrected absorbance, ermine the mg/L of chromium sent by reference to the calibration curve.

NOTE: If the solution is turbid after dilution to 100 mL in Step 7.1, above, take an absorbance reading before adding the carbazide reagent and correct the absorbance reading of the final colored solution by subtracting the absorbance measured previously.

7.2 Preparation of calibration curve:

7.2.1 To compensate for possible slight losses of chromium during digestion or other operations of the analysis, treat the chromium standards by the same procedure as the sample. Accordingly, pipet a chromium standard solution in measured volumes into 250-mL beakers or conical flasks to generate standard concentrations ranging from 0.5 to 5 mg/L Cr(VI) when diluted to the appropriate volume.

7.2.2 Develop the color of the standards as for the samples. Transfer a suitable portion of each colored solution to a 1-cm absorption cell and measure the absorbance at 540 nm. As reference, use Type II water. Correct the absorbance readings of the standards by subtracting the absorbance of a reagent blank carried through the method. Construct a calibration curve by plotting corrected absorbance values against mg/L of Cr(VI).

7.3 Verification:

7.3.1 For every sample matrix analyzed, verification is required to ensure that neither a reducing condition nor chemical interference is affecting color development. This must be accomplished by analyzing a second 10-mL aliquot of the pH-adjusted filtrate that has been spiked with Cr(VI). The amount of spike added should double the concentration found in the original aliquot. Under no circumstances should the increase be less than 30 g Cr(VI)/liter. To verify the absence of an interference, the spike recovery must be between 85% and 115%.

7.3.2 If addition of the spike extends the concentration beyond the calibration curve, the analysis solution should be diluted with blank solution and the calculated results adjusted accordingly.

7.3.3 If the result of verification indicates a suppressive interference, the sample should be diluted and reanalyzed.

7.3.4 If the interference persists after sample dilution, an alternative method (Method 7195, Coprecipitation, or Method 7197, Chelation/Extraction) should be used.

7.4 Acidic extracts that yield recoveries of less than 85% should be retested to determine if the low spike recovery is due to the presence of residual reducing agent. This determination shall be performed by first making an aliquot of the extract alkaline (pH 8.0-8.5) using 1 N sodium hydroxide and then respiking and analyzing. If a spike recovery of 85-115% is

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obtained in the alkaline / quot of an acidic extract that tially was found to contain less than 5 mg/L Cr(VI), one can conclude that the analytical method has been verified..

7.5 Analyze all EP extracts, all samples analyzed as part of a delisting petition, and all samples that suffer from matrix interferences by the method of standard additions (see Method 7000, Section 8.7).

8.0 QUALITY CONTROL

8.1 All quality control data should be maintained and available for easy reference or inspection.

8.2 Dilute samples if they are more concentrated than the highest standard or if they fall on the plateau of a calibration curve.

8.3 Employ a minimum of one blank per sample batch to determine if contamination or any memory effects are occurring.

8.4 Verify calibration with an independently prepared check standard every 15 samples.

8.5 Run one spike duplicate sample for every 10 samples. A duplicate sample is a sample brought through the whole sample preparation and analytical process.

8.6 The method of standard additions (see Method 7000, Section 8.7) shall be used for the analysis of all EP extracts, on all analyses submitted as part of a delisting petition, and whenever a new sample matrix is being analyzed.

9.0 METHOD PERFORMANCE

9.1 The data shown in Table 1 were obtained from records of state and contractor laboratories. The data are intended to show the precision of the combined sample preparation and analysis method.

10.0 REFERENCES

1. Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982, Methods 218.4 and 218.5.

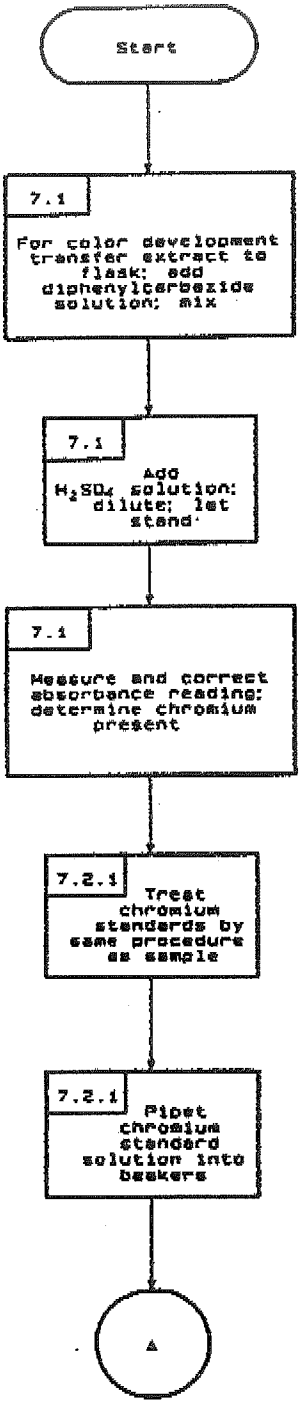
2. Gaskill, A., Compilation and Evaluation of RCRA Method Performance Data, Work Assignment No. 2, EPA Contract No. 68-01-7075, September 1986.

'LE 1. METHOD PERFORMANCE DATA

Sample Matrix	Preparation Method	Laboratory Replicates
Wastewater treatment sludge	Not known	0.096, 0.107 ug/g
Sediment from chemical storage area	3060	115, 117 ug/g

275

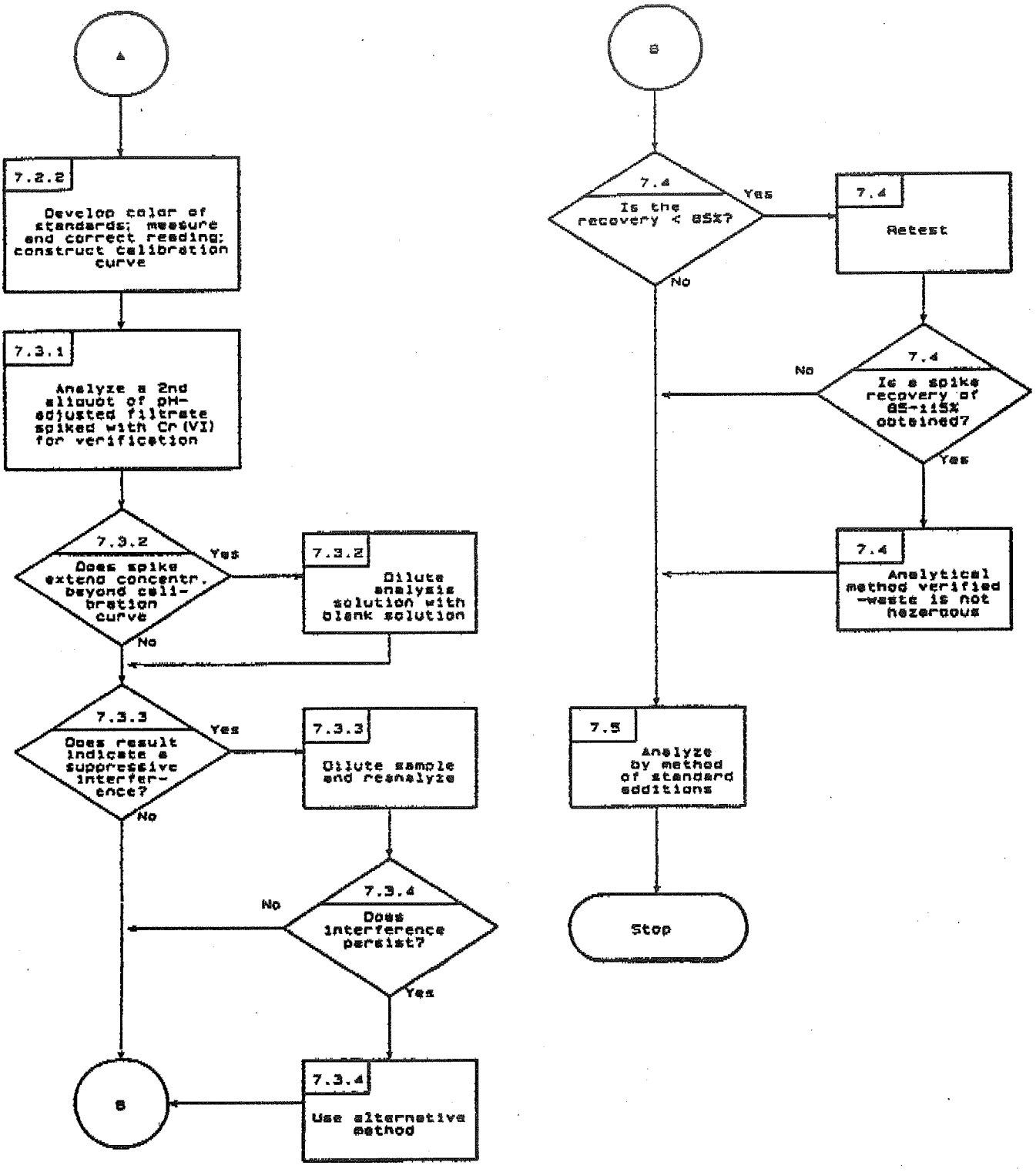
METHOD 7196
HEXAVALENT CHROMIUM (COLORIMETRIC)



Revision 0
Date September 1986

METHOD 7196

HEXAVALENT CHROMIUM (COLORIMETRIC)
(Continued)



Revision 0
Date September 1986

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FILE COPY

May 12, 1994

Washington Department of Ecology
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, Washington 99205

RECEIVED
MAY 13 1994
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

Attention: Bruce Howard, Keith Stoffel
Hazardous Waste/Toxics Reductions Program

Regarding: Report of Analytical Results - Drywell Sampling
Pacemaker Industries, Inc.
WDOE Order No. DE 90-E727

Dear Gentlemen:

Leppo Consultants, Inc. on behalf of our client Pacemaker Industries, Inc. is presenting the results of the sampling program completed for the interior drywells at the subject site. The sampling event, laboratory analysis of samples, and data evaluation were conducted to evaluate total metals concentrations in soil and sediment within the two drywells in the rear warehouse. The sampling event was planned and performed with the intent to comply with Item 5 of the Washington Department of Ecology's (WDOE) Order No.DE 90-E727 (December 6, 1990).

A Sampling and Analysis Plan (SAP) was submitted for WDOE review and approval on April 25, 1994. The SAP was approved per your April 26, 1994 correspondence. The sampling event was subsequently conducted on April 27, 1994 with WDOE personnel in attendance. The sampling program was conducted under the according to the procedures, analytical matrix, and quality assurance and control protocol outlined in the SAP.

Two soil/sediment samples, DW1 and DW12, were collected from the south drywell designated DW1. DW1 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment within the interior drywell column. DW12 was composited from sample points at approximately 6 to 12 inches below the drywell soil/sediment surface. One soil/sediment sample, DW2, was collected from the north drywell designated DW2. DW2 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment.

The following table summarizes the analytical results. The laboratory reports are attached. The results are reported in parts per million (ppm) or mg/kg. The data is presented with the Model Toxics Control Act (MTCA) (Chapter 173-340 WAC) Method A and Method B Non-Carcinogen (NC) Soil Cleanup Levels for soil exposure according to your April 26, 1994 letter. The Method B Cleanup Levels have been corrected to reflect the non-carcinogen standard.

ENVIRONMENTAL CONSULTING AND SERVICES
EAST 3810 BOONE AVE., SUITE 204 • SPOKANE, WASHINGTON 99202 • (509) 535-7225 FAX (509) 535-7361

Drywell Analytical Results

TOTAL METAL	DW1 0 TO 6 IN.	DW12 6 TO 12 IN.	DW2 0 TO 6 IN.	MTCA METHOD A LEVEL	MTCA METHOD B LEVEL (NC)
Arsenic	8.1	6.0	6.3	20	60
Barium	1200	93	140	NE	5600
Cadmium	6.1	ND	ND	2.0	40
Chromium	3600	2400	6300	100 (Total)	80000 (III)
Chromium VI	ND	-	ND	NE	400 (VI)
Lead	4100	250	120	250	400
Mercury	0.28	0.018	0.52	1.0	24
Selenium	0.47	0.15	0.060	NE	400
Silver	ND	ND	ND	NE	240

Notes: ND - Not detected above laboratory method reporting limits.
NE - No cleanup level established.

Pacemaker Industries, Inc. has submitted a SAP, conducted sampling of drywell soil/sediment, and presented the data for your review. Based on these and other compliance measures undertaken by Pacemaker Industries, Inc., it is our professional opinion that appropriate actions have been completed to meet the conditions of Order No. DE 90-E727.

Pacemaker Industries, Inc. looks forward to receiving your positive response to their actions. We are interested in meeting with you for discussion of potential remedial actions and MTCA compliance issues. Please do not hesitate to contact us if you have any questions, comments, or to arrange a meeting.

Respectfully,

LEPPO CONSULTANTS, INC.

Jeffrey E. Leppo
Principal

jl:pacdoeltr.rpt

cc: Robert W. Ramer, Pacemaker Industries, Inc.

NORTH CREEK ANALYTICAL

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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	Sampled:	Apr 27, 1994
E. 3810 Boone Ave. Suite 204	Sample Descript:	DW1	Received:	Apr 27, 1994
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Apr 28, 1994
Attention: Jeffrey E. Leppo	Sample Number:	404-4264	Analyzed:	Apr 28/29, 1994
			Reported:	May 4, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.010	8.1
Barium	7080	2.0	1,200
Cadmium	7130	2.0	6.1
Chromium	7190	1.0	3,600
Lead	7420	7.5	4,100
Mercury	7470	0.010	0.28
Selenium	7741	0.015	0.47
Silver	7760	2.00	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	Sampled:	Apr 27, 1994
E. 3810 Boone Ave. Suite 204	Sample Descript:	DW12	Received:	Apr 27, 1994
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Apr 28, 1994
Attention: Jeffrey E. Leppo	Sample Number:	404-4265	Analyzed:	Apr 28/29, 1994
			Reported:	May 4, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.010	6.0
Barium	7080	2.0	93
Cadmium	7130	2.0	N.D.
Chromium	7190	1.0	2,400
Lead	7420	7.5	250
Mercury	7470	0.010	0.018
Selenium	7741	0.015	0.15
Silver	7760	2.00	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

4044264.LEP <3>

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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	Sampled:	Apr 27, 1994
E. 3810 Boone Ave. Suite 204	Sample Descript:	DW2	Received:	Apr 27, 1994
Spokane, WA 99202	Sample Matrix:	Soil	Digested:	Apr 28, 1994
Attention: Jeffrey E. Leppo	Sample Number:	404-4266	Analyzed:	Apr 28/29, 1994
			Reported:	May 4, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.010	6.3
Barium	7080	2.0	140
Cadmium	7130	2.0	N.D.
Chromium	7190	1.0	6,300
Lead	7420	7.5	120
Mercury	7470	0.010	0.52
Selenium	7741	0.015	0.060
Silver	7760	2.00	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	
E. 3810 Boone Ave. Suite 204	Sample Descript:	Method Blank	
Spokane, WA 99202	Sample Matrix:	Soil	Digested: Apr 28, 1994
Attention: Jeffrey E. Leppo	Sample Number:	BLK40428A	Analyzed: Apr 28/29, 1994
			Reported: May 4, 1994

METALS ANALYSIS

Analyte	EPA Method	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Arsenic	7061	0.010	N.D.
Barium	7080	2.0	N.D.
Cadmium	7130	2.0	N.D.
Chromium	7190	1.0	N.D.
Lead	7420	7.5	N.D.
Mercury	7470	0.010	N.D.
Selenium	7741	0.015	N.D.
Silver	7760	2.00	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	Sampled:	Apr 27, 1994
E. 3810 Boone Ave. Suite 204	Sample Matrix:	Soil	Received:	Apr 27, 1994
Spokane, WA 99202	Analysis Method:	EPA 7196 Mod	Analyzed:	May 4, 1994
Attention: Jeffrey E. Leppo	First Sample #:	404-4264	Reported:	May 4, 1994

METALS ANALYSIS FOR: HEXAVALENT CHROMIUM

Sample Number	Sample Description	Reporting Limit mg/kg (ppm)	Sample Result mg/kg (ppm)
404-4264	DW1	1.0	N.D.
404-4266	DW2	1.0	N.D.
BLK050494	Method Blank	1.0	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

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Scott L. Armand
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Leppo Consultants, Inc.	Client Project ID:	Pacemaker Ind. Drywells, #941412	
E. 3810 Boone Ave. Suite 204	Sample Matrix:	Soil	
Spokane, WA 99202			Received: Apr 27, 1994
Attention: Jeffrey E. Leppo	First Sample #:	404-4264	Reported: May 4, 1994

TOTAL SOLIDS & MOISTURE CONTENT REPORT

Sample Number	Sample Description	Total Solids %	Moisture Content %
404-4264	DW1	70	30
404-4265	DW12	87	13
404-4266	DW2	69	31

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis.
To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.
The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

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Leppo Consultants, Inc.
E. 3810 Boone Ave. Suite 204
Spokane, WA 99202
Attention: Jeffrey E. Leppo

Client Project ID: Pacemaker Ind. Drywells, #941412
Sample Matrix : Soil
Units: mg/kg (ppm)

Analyst: G. B. Holte

Digested: Apr 28, 1994
Reported: May 4, 1994

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury
EPA Method:	7061	7080	7130	7190	7420	7470
Date Analyzed:	4/28/94	4/29/94	4/29/94	4/29/94	4/29/94	4/28/94
ACCURACY ASSESSMENT						
LCS Spike Conc. Added:	0.005	10.0	1.0	10.0	10.0	0.005
LCS Spike Result:	0.00519	10.2	0.953	9.80	9.47	0.0051
LCS Spike % Recovery:	104	102	95.3	98.0	94.7	102
Upper Control Limit:	120	120	120	120	120	120
Lower Control Limit:	80	80	80	80	80	80
Matrix Spike Sample #:	404-4266	404-4266	404-4266	404-4266	404-4266	404-4266
Matrix Spike % Recovery:	Q3	106	94.8	Q3	86.7	76.8
PRECISION ASSESSMENT						
Sample #:	404-4266	404-4266	404-4266	404-4266	404-4266	404-4266
Original:	6.32	138	N.D.	6,320	117	0.52
Duplicate:	6.43	47.4	N.D.	5,610	118	0.32
Relative % Difference:	29.3	Q2	Q5	11.9	0.85	47.6

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Laboratory Manager

Please Note:
Q3: The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample. Q2: The Spike Recovery for this QC sample is outside of NCA established control limits due to sample matrix interference. Q5: Relative Percent Difference values are not reported at sample concentrations less than ten times the Reporting Limit.

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Leppo Consultants, Inc.
E. 3810 Boone Ave. Suite 204
Spokane, WA 99202
Attention: Jeffrey E. Leppo

Client Project ID: Pacemaker Ind. Drywells, #941412
Sample Matrix : Soil
Units: mg/kg (ppm)

Analyst: G. B. Holte

Digested: Apr 28, 1994
Reported: May 4, 1994

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Selenium	Silver
EPA Method:	7741	7760
Date Analyzed:	4/29/94	4/29/94
ACCURACY ASSESSMENT		
LCS Spike Conc. Added:	0.005	1.00
LCS Spike Result:	0.00491	1.14
LCS Spike % Recovery:	88.2	114
Upper Control Limit:	120	120
Lower Control Limit:	80	80
Matrix Spike Sample #:	404-4266	404-4266
Matrix Spike % Recovery:	59.0	103
PRECISION ASSESSMENT		
Sample #:	404-4266	404-4266
Original:	0.060	N.D.
Duplicate:	0.044	N.D.
Relative % Difference:	Relative Percent Difference values are not reported at sample concentrations less than ten times the Reporting Limit.	

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand
Laboratory Manager

Lab Control Sample % Recovery: $\frac{\text{Conc. of L.C.S.}}{\text{L.C.S. Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

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Leppo Consultants, Inc.
E. 3810 Boone Ave. Suite 204
Spokane, WA 99202
Attention: Jeffrey E. Leppo

Client Project ID: Pacemaker Ind. Drywells, #941412
Sample Matrix : Soil
Units: mg/kg (ppm)

Analyst: B. K. Oaks

Reported: May 4, 1994

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Hexavalent Chromium

EPA Method: 7196 Mod
Date Analyzed: 5/4/94

ACCURACY ASSESSMENT

LCS Spike Conc. Added: 25

LCS Spike Result: 26

LCS Spike % Recovery: 104

Upper Control Limit: 125

Lower Control Limit: 75

Matrix Spike Sample #: 404-4266

Matrix Spike % Recovery: 58

PRECISION ASSESSMENT

Sample #: 404-4266

Original: N.D.

Duplicate: N.D.

Relative % Difference: Relative Percent Difference values are not reported at sample concentrations less than ten times the Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample % Recovery: $\frac{\text{Conc. of L.C.S.}}{\text{L.C.S. Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

Scott L. Armand
Laboratory Manager

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NORTH CREEK ANALYTICAL

East 11115 Montgomery, Suite B • Spokane, WA 99206
Phone (509) 924-9200 • FAX (509) 924-9290

CHAIN OF CUSTODY REPORT

CLIENT: Pacemaker Industries, Inc.
ADDRESS: P.O. Box 11527
7203 E. Nora Avenue
Spokane, WA 99211
PHONE: 928-3456 FAX:

REPORT TO: Jeffrey Leppo
Leppo Consultants, Inc.
BILLING TO: Pacemaker Industries
P.O. NUMBER: 941412
NCA QUOTE #: SP404056

SAME DAY (2-8 HR.) RUSH	(+150%)	
NEXT DAY RUSH	(+100%)	
2 DAY RUSH	(+80%)	
3 DAY RUSH	(+60%)	
5 DAY RUSH	(+40%)	✓
10 DAY STANDARD	(LIST PRICE)	

PROJECT NAME: Pacemaker Ind. Drywells
PROJECT NUMBER: 941412
SAMPLED BY: J. Leppo

SAMPLE IDENTIFICATION: NUMBER OR DESCRIPTION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.	Total Metals (8)	Cr VI, Hexavalent	ANALYSIS REQUESTED	COMMENTS & PRESERVATIVES USED	LABORATORY NUMBER
1 DW1	4/27 - 1100	S	1	✓	✓			404-4264
2 DW12	4/27 - 1100	S	1	✓				4265
3 DW2	4/27 - 1100	S	1	✓	✓			4266
4								
5								
6								
7								
8								
9								
10								

RELINQUISHED BY:	DATE:	RECEIVED BY: Kim Robins	DATE: 4-27-94
FIRM:	TIME:	FIRM: NCA	TIME: 12:00
RELINQUISHED BY:	DATE:	~~RECEIVED BY:~~ RELINQUISHED Scott Mayfield	DATE: 4-27-94
FIRM:	TIME:	FIRM: Leppo Consultants	TIME: 12:00

SAMPLE RECEIPT INFORMATION: CONTAINER CONDITION?: GOOD VIOLATED COOL (4° C)? YES NO
CUSTODY SEALS? GOOD VIOLATED NOT USED HAZARDOUS SAMPLES?: NO YES; DESCRIBE ON BACK

LEPPO CONSULTANTS INC.

FILE COPY

FAX TRANSMITTAL

TO: Bruce H, Keith S. **DATE:** 5/12/94

OF: WDOE **FAX NO.:** 456-6175

REGARDING: Pacemaker Industries, Inc.

NUMBER OF SHEETS 3 **(Including Transmittal)**

COMMENTS:

letter w/ lab reports to follow in mail.

FROM: Jeff Sage

ENVIRONMENTAL CONSULTING AND SERVICES
EAST 3810 BOONE AVE., SUITE 204 • SPOKANE, WASHINGTON 99202 • (509) 535-7225 FAX (509) 535-7361

LEPPO CONSULTANTS INC.

May 12, 1994

Washington Department of Ecology
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, Washington 99205

Attention: Bruce Howard, Keith Stoffel
Hazardous Waste/Toxics Reductions Program

Regarding: Report of Analytical Results - Drywell Sampling
Pacemaker Industries, Inc.
WDOE Order No. DE 90-E727

Dear Gentlemen:

Leppo Consultants, Inc. on behalf of our client Pacemaker Industries, Inc. is presenting the results of the sampling program completed for the interior drywells at the subject site. The sampling event, laboratory analysis of samples, and data evaluation were conducted to evaluate total metals concentrations in soil and sediment within the two drywells in the rear warehouse. The sampling event was planned and performed with the intent to comply with Item 5 of the Washington Department of Ecology's (WDOE) Order No.DE 90-E727 (December 6, 1990).

A Sampling and Analysis Plan (SAP) was submitted for WDOE review and approval on April 25, 1994. The SAP was approved per your April 26, 1994 correspondence. The sampling event was subsequently conducted on April 27, 1994 with WDOE personnel in attendance. The sampling program was conducted under the according to the procedures, analytical matrix, and quality assurance and control protocol outlined in the SAP.

Two soil/sediment samples, DW1 and DW12, were collected from the south drywell designated DW1. DW1 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment within the interior drywell column. DW12 was composited from sample points at approximately 6 to 12 inches below the drywell soil/sediment surface. One soil/sediment sample, DW2, was collected from the north drywell designated DW2. DW2 was composited from sample points recovered from the upper 0 to 6 inches of soil/sediment.

The following table summarizes the analytical results. The laboratory reports are attached. The results are reported in parts per million (ppm) or mg/kg. The data is presented with the Model Toxics Control Act (MTCA) (Chapter 173-340 WAC) Method A and Method B Non-Carcinogen (NC) Soil Cleanup Levels for soil exposure according to your April 26, 1994 letter. The Method B Cleanup Levels have been corrected to reflect the non-carcinogen standard.

Drywell Analytical Results

TOTAL METAL	DW1 0 TO 6 IN.	DW12 6 TO 12 IN.	DW2 0 TO 6 IN.	MTCA METHOD A LEVEL	MTCA METHOD B LEVEL (NC)
Arsenic	8.1	6.0	6.3	20	60
Barium	1200	93	140	NE	5600
Cadmium	6.1	ND	ND	2.0	40
Chromium	3600	2400	6300	100 (Total)	80000 (III)
Chromium VI	ND	-	ND	NE	400 (VI)
Lead	4100	250	120	250	400
Mercury	0.28	0.018	0.52	1.0	24
Selenium	0.47	0.15	0.060	NE	400
Silver	ND	ND	ND	NE	240

Notes: ND - Not detected above laboratory method reporting limits.
NE - No cleanup level established.

Pacemaker Industries, Inc. has submitted a SAP, conducted sampling of drywell soil/sediment, and presented the data for your review. Based on these and other compliance measures undertaken by Pacemaker Industries, Inc., it is our professional opinion that appropriate actions have been completed to meet the conditions of Order No. DE 90-E727.

Pacemaker Industries, Inc. looks forward to receiving your positive response to their actions. We are interested in meeting with you for discussion of potential remedial actions and MTCA compliance issues. Please do not hesitate to contact us if you have any questions, comments, or to arrange a meeting.

Respectfully,

LEPPO CONSULTANTS, INC.

Jeffrey E. Leppo
Principal

jl:pacdoeltr.rpt

cc: Robert W. Ramer, Pacemaker Industries, Inc.

FILE COPY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
N. 4601 Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

April 26, 1994

Mr. Jeff Leppo
Leppo Consultants, Inc.
3810 Boone Avenue
Suite 204
Spokane, WA 99202

Dear Mr. Leppo:

We have reviewed the *Sampling and Analysis Plan* for the Pacemaker Industries, Inc. Spokane facility, which you submitted to Ecology on April 25, 1994. We believe that the plan meets the requirements of Ecology Order DE 90-E727, which was issued to Pacemaker Industries on December 6, 1990. Therefore, we herein formally approve the plan.

We would like to emphasize however, that the proposed cleanup standards given in Table 2 of the plan are too simplistic, and are not necessarily accurate. Enclosed is a table illustrating the Washington Model Toxics Control Act (MTCA) soil cleanup levels for the eight metals of concern at the facility. As you can see, a single cleanup level (either Method A or Method B) is established for four of the metals, and multiple cleanup levels are established for the other four. It is important to note that if the soils at the facility are contaminated with only one metal, then either the Method A or B level (whichever is less stringent) can be utilized as the soil cleanup level. However, if the soils are contaminated with two or more metals, then the Method A cleanup level must be used for each metal, or the Method B cleanup level must be used for each metal (i.e., soil cleanup levels cannot be established by mixing Method A and Method B).

It is also important to note that the cleanup levels given in Table 2 are MTCA soil cleanup levels *for soil exposure* (i.e., direct contact). If it is determined during your site characterization study that contaminated soils have impacted, or are a threat to impact groundwater beneath the facility, then MTCA soil cleanup levels *for groundwater protection* must be used in lieu of the cleanup levels *for soil exposure*. As you know, cleanup levels *for groundwater protection* are more stringent than those *for soil exposure*.

Please notify us when you have scheduled a date for collecting the soil samples. We would like to obtain sample splits for analysis in the Ecology lab.

Thank you for your cooperation.

Sincerely,

Keith L. Stoffel
Hydrogeologist

Bruce F. Howard
Hazardous Waste Supervisor

KS:kt
Enclosure
cc: Robert W. Ramer, Pacemaker

MTCA SOIL CLEANUP LEVELS

~~C = Carcinogen~~
~~NC = Non-carcinogen~~
NE = Not established

SOIL CLEANUP LEVELS FOR SOIL EXPOSURE
(ppm)

CONSTITUENT	METHOD A	METHOD B ~~(C)~~ non-carcinogen	METHOD B ~~(NC)~~ carcinogen
Arsenic	20	60	1.43
Barium	NE	5,600	NE
Cadmium	2.0	40	NE
Chromium Tot	100	NE	NE
Chromium III	NE	80,000	NE
Chromium VI	NE	400	NE
Lead	250	NE	NE
Mercury	1.0	24	NE
Silver	NE	240	NE
Selenium	NE	400	NE

LEPPO
CONSULTANTS
INC.

April 25, 1994

RECEIVED
APR 25 1994
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

Washington Department of Ecology
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, Washington 99205

Attention: Bruce Howard
Hazardous Waste/Toxics Reductions Program

Regarding: Sampling and Analysis Plan - Drywells
Pacemaker Industries, Inc.
Order No. DE 90-E727

Dear Bruce:

Leppo Consultants, Inc. on behalf of our client Pacemaker Industries, Inc. is presenting a Sampling and Analysis Plan (SAP) for interior drywells at the subject site. According to our meeting yesterday afternoon, a soil/sediment sampling event is required to evaluate total metals concentrations in the two drywells in the rear warehouse. The two drywells have historically received wastewater discharges from a chrome-coating process tank used to treat sheet aluminum.

We understand the requirements under Order No. DE 90-E727 is for Pacemaker to submit a SAP for Washington Department of Ecology (WDOE) review and approval. Following agreement on the sampling matrix and quality assurance/control protocols, the drywells will be sampled for the indicated parameters. The sample data will be evaluated against applicable regulatory cleanup standards. The approved SAP and subsequent sampling event is intended to comply with Item 5 (Page 2) of the Dangerous Waste Regulations (Chapter 173-303 WAC) enforcement order dated December 6, 1990.

As you are aware, a purchase and sale agreement is currently pending for transfer of the property and is predicated on the outcome of these efforts. An accelerated schedule is an important part of the our project. Based on this condition and yesterday's discussion, the following abridged SAP is presented for your review of planned activities.

Project Objectives

The project objectives are to: 1) submit a SAP for WDOE review and approval, 2) complete an approved sampling program, and 3) to evaluate if soil/sediment within the upper soil/sediment profile of each drywell is within Model Toxics Control Act (MTCA) (Chapter 173-340 WAC) Cleanup Standards.

Project Schedule

The following tentative schedule is proposed:

Activity	Tentative Completion Date
SAP Submittal	April 25
Field Sampling	April 26 - 29
Laboratory Results	May 4
Draft Letter Report to Client	May 9
Final Letter Report to WDOE	May 11

Sampling Procedures

Soil/sediment samples will collected from the upper soil/sediment profile within the drywell interiors. Samples will be collected with a 3/4 inch inside diameter (I.D.) steel soil corer. The soil corer will be advanced into the upper soil/sediment profile. An individual soil/sediment sample will be collected from each drywell. Soil cores from several sample points within the drywell will be composited into one sample until a sufficient quantity is retrieved for analysis.

The soil corer will be decontaminated prior to each drywell sampling with: 1) tap water rinse - 2) alconox wash - 3) tap water rinse - 4) isopropanol rinse - 5) distilled water rinse.

Soils and materials encountered within the drywells will be described. Documentation will include field diaries and photography.

Soil/sediment samples will be collected in laboratory-provided glass containers that are labeled, dated, and identified. Chain-of-custody records will be maintained. Samples will be placed in an iced cooler (4 degrees Celsius) and transported to North Creek Analytical of Spokane, Washington.

Sample Matrix

The soil/sediment samples will be analyzed for eight priority pollutant metals using Total Metals laboratory methods (EPA method 7000 series). The eight metals are arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Chromium may be considered the primary metal-of-concern based on the chrome content of the process wastewater. A soil/sediment sample will also be collected from each drywell for analysis of the chromium VI (hexavalent) ion.

Table 1
Soil/Sediment Sample Matrix

Estimated Number	Parameter	Laboratory Method	Method Limit (ppm)[1]
3	Total Metals -	EPA 7000 Series -	
	Arsenic	7061	0.011
	Barium	7080	8.0
	Cadmium	7130	0.7
	Chromium	7190	8.0
	Lead	7420	6.5
	Mercury	7470	0.007
	Selenium	7741	0.005
	Silver	7760	0.04
2	Chromium VI	GFAA 7195	0.1

Notes: 1) Parts per million or mg/kg

Quality Control

Quality control procedures will conducted for sampling and analytical procedures. Quality control data will be used to evaluate randon and systematic errors in collection methods and laboratory measurements.

A quality control sample will be collected consisting of a duplicate of one drywell sample. The duplicate will be collected at the same time and location as the original sample. The duplicate will be stored and analyzed under identical conditions.

Laboratory quality control will include method blanks and accuracy/precision assessment of matrix spikes. Method blanks will be prepared along with the soil samples at the start of the analytical procedure. The analytical results will be used to blank-correct the soil sample responses. The results will be reported with the analytical results. Matrix spikes will be completed to assess accuracy and precision. Spike recovery, upper and lower limit controls, and relative percent differences will be reported with the analytical results.

Data Evaluation

The analytical results will be compared with the MTCA Cleanup Standards. Soil cleanup levels for this site will be based on direct human exposure and a 15 ft. below ground surface point-of-compliance. The Method A Cleanup Levels and Method B Cleanup Levels Formula Values Table (CLARC II) are to be used for evaluation of total metals constituents. The following table presents the proposed cleanup levels to be used for evaluation of drywell soil/sediment.

Table 2
Proposed Cleanup Standards

Constituent	CAS Number	Cleanup Level (ppm)
Arsenic	7440-38-2	20
Barium	7440-39-3	5600
Cadmium	7440-43-9	2.0
Total Chromium	16065-83-1,18540-29-9	100
Lead	7439-92-1	250
Mercury	7439-97-6	1.0
Silver	7440-22-4	240
Selenium	7782-49-2	400

Assessment Report

A final letter report will be presented to WDOE documenting the sampling event and data evaluation. The documentation is intended to provide sufficient information for WDOE to review and evaluate site drywell conditions. The final letter report is intended to satisfy the requirements of Order No. DE 90-E727, Item 5.

Following the evaluation of subject site drywell conditions, a review of other necessary closure or remedial actions, as necessary, will completed with WDOE.

Leppo Consultants, Inc. has presented this abridged SAP on behalf of our client, Pacemaker Industries, Inc. The SAP was prepared using readily available information, interviews with knowledgeable parties, including regulatory personnel, current and known environmental regulations pertinent to the site conditions, and professional opinions.

Leppo Consultants, Inc. will be in communication regarding the field sampling date and other scheduled events. Please do not hesitate to contact us if you have any questions.

SIncerely,

LEPPO CONSULTANTS, INC.

Jeffrey E. Leppo

jl

cc: Robert W. Ramer, Pacemaker Industries, Inc.

FILE COPY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
N. 4601 Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

April 20, 1994

Mr. Robert W. Ramer, President
Pacemaker Industries, Inc.
P.O. Box 11527
Spokane, WA 99211

Dear Mr. Ramer:

I am writing in response to your letter of January 5th. I apologize for taking so long to get back to you concerning the dry wells on your property, and Ecology's Order No. DE 90-E727.

The part of the Order you referred to, Number 5, required Pacemaker to submit a sampling plan to the Department for approval prior to sampling. While your letter of January 5th discusses the sampling procedures you followed, no such plan was ever submitted to, discussed with or approved by the Department.

I see two immediate problems with the results you obtained from the dry well. First, it is impossible to tell at what depths the dry wells were sampled. Given the relatively long-term discharges that occurred to the dry wells, we would require sampling to some depth, e.g., 15 feet. In addition, if any sludges have been cleaned out of the dry wells in the last several years, or if any other sample results have been obtained, we would want to review that data. The second major issue is that the samples were tested via the Toxicity Characteristic Leaching Procedure (TCLP). This procedure would be appropriate if material were being designated to determine if it were a hazardous waste, but for the purpose of environmental assessment, a totals sampling is more appropriate (and, less expensive).

As a result, I am unable to consider the material you submitted a fulfillment of Order DE 90-E727. Conducting proper sampling to fulfill this Order should not be overly complicated or expensive. I would be happy to meet with you, and your current consultant, Jeff Leppo, to discuss this matter. I do appreciate the other work you have undertaken to meet the Order and protect the environment. Please let me know how we can assist you in completing the work regarding the dry wells on site.

Sincerely,

Bruce F. Howard
Hazardous Waste Supervisor

cc: Jeff Leppo

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458

JAN - 6 1994
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

Jan. 5, 1994

Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Attention: Mr. Bruce Howard

Dear Mr. Howard:

Part 5 of Order No. DE 90-E727 instructs us to sample soils under the abandoned dry well to determine any possible contamination. You and I have discussed this on various occasions. We have retained Mr. Jeffrey E. Leppo of Leppo Consultants to help us resolve this last unresolved issue of the order and per his instructions we used a long length of PVC conduit 1" ID as a probe. We worked it around the rock as best we could to extract a number of plugs about six inches long. These were rodded out of the conduit. Six separate samples were extracted at various points in the bottom of both dry wells and were mixed. A representative sample went to Treclen Labs and their report No. E-1712 was received today, a copy of which is enclosed for your use.

Leppo advises that 5.0 mg/l is permissable on the Cr. All other elements in the TCLP are below minimums.

All other parts of your order have been complied with in full. We would like to treat the dry wells as septic tanks and fill them with sand and place a concrete cap over them. Inlet pipes to the tanks have been filled with concrete for three years and the tanks are dry.

Yours truly,

Robert W. Ramer, Pres.

cc: Leppo Consultants, Inc.

TrecLen Laboratories
N. 1403 Greene St., Spokane, WA 99202 (509) 535-5501
P.O. Box 14642, Spokane, WA 99214

ANALYTICAL REPORT

Client: Pacemaker
P.O. Box 11527
Spokane, WA 99211

Report Number: E-1712

Sample ID 12-22-93	mg/l Cd	mg/l Pb	mg/l Cr	mg/l Ag	mg/l Ba	mg/l Hg	mg/l As	mg/l Se
Dry Well #2	<0.02	<0.1	2.4	<0.1	0.1	<0.005	<0.01	<0.01

TCLP

Date: December 30, 1993

Signed: John Trechter

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY PACEMAKER INDUSTRIES, INC. with Chapter 70.105 RCW and the Rules and Regulations of the Department of Ecology	)))))	ORDER No. DE 90-E727

To: Pacemaker Industries, Inc.
Robert Ramer, President
East 7203 Nora
Spokane, WA 99212

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations," designates those solid wastes which are dangerous or extremely hazardous to the public health and environment; and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely.

An inspection conducted at Pacemaker Industries on October 17, 1990, revealed the following areas of non-compliance:

1. Pacemaker was storing waste in containers that were opened and labelled improperly. In addition, the company has not documented any inspections of container storage area. The storage area for the waste lacks a containment system. These are violations of WAC 173-303-630.

2. Pacemaker has not sufficiently characterized waste streams on site, a violation of WAC 173-303-170.

3. Pacemaker had discharged unpermitted wastewaters to a dry well on site, a violation of WAC 173-303-145 and RCW 90.48.

4. Pacemaker has been evaporating lacquer thinner to the air, in violation of WAC 173-303-145.

5. Pacemaker violated the 90-day accumulation limit and additional requirements of WAC 173-303-200.

6. Pacemaker has not met the personnel training requirements of WAC 173-303-330.

7. Pacemaker has not met the requirements for preparedness and prevention of WAC 173-303-340.

8. Pacemaker has not met the contingency plan and emergency planning requirements of WAC 173-303-350 and -360.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the Department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with the provisions of RCW 70.105.095.

IT IS ORDERED THAT Pacemaker Industries, Inc., shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

1. Pacemaker shall, immediately, label all containers of waste in accordance with WAC 173-303-630; all containers shall be kept closed except when waste is being added.

2. Pacemaker shall, within 30 days of receipt of this Order, designate a waste container storage area that meets the requirements of WAC 173-303-630.

3. Pacemaker shall, within thirty (30) days of receipt of this Order, designate each wastewater waste stream to determine if the wastewaters are dangerous wastes.

4. Pacemakers shall immediately cease discharge of any unpermitted wastewaters to any dry well or drain field.

5. Pacemaker shall, within forty-five (45) days of receipt of this Order, submit a plan to this office for sampling of soils and/or sludges in the dry well to determine if contamination exists. Pacemaker shall carry out such sampling within fifteen (15) days of approval of such a plan. If it is determined contamination does exist on-site, Pacemaker will be required to submit a clean-up plan.

6. Pacemaker shall, immediately cease evaporation of any lacquer thinners or other solvents.

7. Pacemaker shall, within thirty (30) days of receipt of this Order, ship off-site to an approved treatment, storage, and disposal facility, any waste that has been in storage longer than ninety days. Pacemaker shall send copies of all manifests to this office within fifteen (15) days of the date waste is shipped off-site.

8. Pacemaker shall, within fifteen (15) days of receipt of this Order, begin regular inspections of its container storage area in accordance with WAC 173-303-630. These inspections should be documented on an inspection log. Pacemaker shall submit a copy of its inspection log to this office within thirty (30) days of receipt of this Order.

9. Pacemaker shall, within sixty (60) days of receipt of this Order, take actions to come into compliance with the following: the personnel training requirements of WAC 173-303-330; the preparedness and prevention requirements of WAC 173-303-340; and the contingency and emergency planning requirements of WAC 173-303-350 and -360.

Any person who fails to take corrective action as specified in a compliance ORDER shall be liable to a civil penalty of not more than ten thousand dollars for each day of continued noncompliance. In addition, the department may suspend or revoke any permits and/or certificates issued under the provisions of this chapter to a person who fails to comply with an ORDER directed against him.

Any person feeling aggrieved by this ORDER may obtain review thereof by application, within thirty (30) days of receipt of this ORDER to the Pollution Control Hearings Board, Mail Stop PY-21, Olympia, WA 98504-8921. Concurrently, a copy of the application must be sent to the Department of Ecology, Mail Stop PV-11, Olympia, WA 98504-8711 and to the Department of Ecology, N. 4601 Monroe, Suite 100, Spokane, WA 99205-1295. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

DATED at Spokane, Washington this 7th day of December.

James L. Malm
Section Supervisor
Solid and Hazardous Waste Section
Eastern Regional Office
Department of Ecology
State of Washington

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

• P. O. BOX 11527
• E. 7203 NORA
• SPOKANE, WA 99211
• Telephone (509) 928-3456

RECEIVED MAR - 2 1992 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL OFFICE

TO Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date February 28, 1992
Job No.
Attention Bruce Howard
Re: Order # DE 90-E727

Gentlemen:

We are sending you ☒ attached — ☐ under separate cover — via f/c/m the following items:

☐ Shop Drawings ☒ Submittals ☐ Plans ☐ Specifications ☐ Copy of Letters

☐

No. of Copies	Item Number	DESCRIPTION
1		Chempro Profile Sheet CP 49649
1		Hazardous Waste Manifest No. 21259
1		PMI Training Plan for Handling Dangerous Waste with minutes of meetings held 2/1/91 and 2/3/92.
1		Gober's Invoice #7590 for hauling water from rinse tanks to Spokane Wastewater Treatment Plant.
1		Treclen Lab Invoice No. 005426 for testing waste water.

These are supplied per your phone call of Feb. 26, 1992. Since our discussion about testing the soil below our drywells, we have been looking for some type of auger that will work. Ideally, we would like to have one that we could operate from the floor of the shop without having to put a man down in the hole. That may still be the only way we'll get it done. We hope to have material to the testing lab during March.

These are transmitted as checked below:

☐ For Approval ☒ For Your Use ☐ Resubmitted ☐ Please Return ____ Copies

☐

Remarks: Per your instructions, we will have it tested for Ph, Total Metals, and TPH.

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

M L

GOBER'S, INC. 7590
East 11215 Trent
SPOKANE, WA 99206
(509) 924-5372
Net 30 days. 1½% Service charge over 30 days.

DATE 1-25-92

CUSTOMER'S ORDER NO.	PHONE	DATE
830-	928-3456	1-24 1992

NAME Pacemaker Industries
ADDRESS E 7203 Napa 99212

CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT		

2000	pumped waste water	200	00
2200	pumped waste water	220	00
500	pumped waste water	50	00
		470	00
	waste water		
10¢	per gallon		
	TAX	37	60
SOLD BY	RECEIVED BY 658	TOTAL 507	60

All claims and returned goods MUST be accompanied by this bill.

Thank You

PRODUCT 609 NEBS Inc., Groton, Mass. 01471.

1702

OUNT PAID $

PREVIOUS BALANCE
$

ISES	PAYMENTS OR CREDITS	NEW BALANCE
50	-0-	507.60
#1702		

T
c
"I
per month which is an ANNUAL PERCENTAGE RATE of 18% applied to the Previous Balance without deducting current payments and/or credits appearing on this statement.

JAN 27 REC'D
PACEMAKER INDUSTRIES, INC.

Payments, credits or charges, received after the statement date which is the closing date of this billing cycle, will appear on your next statement. To avoid additional FINANCE CHARGES pay the "NEW BALANCE" before the statement date next month.

GOBER'S INC.

Thank You

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

Public Records Exempt from Disclosure:

Applicable Records	State Legislature Exemption Code
Copies of bank checks which include financial account numbers.	RCW 42.56.230

LABORATORIES
P.O. BOX 14642
SPOKANE, WA 99214

20730

Report # E-468

INVOICE NO.

№ 005426

SOLD TO	SHIPPED TO
Pacemaker Industries	
STREET & NO.	STREET & NO.
CITY STATE ZIP	CITY STATE ZIP

CUSTOMER'S ORDER	SALESMAN	TERMS	F.O.B.	DATE
				Dec 13, 1991

INVOICE

2	Cr,Cu,Pb,Zn Determinations @ $40.00 ea	$ 80.00
1	Cd,Ni,As,pH, Oil & Grease Determination	66.00
	Total Due	$ 146.00
		658

RECEIVED
FEB 28 RECD
PACEMAKER INDUSTRIES, INC.

PAY

$*******146.00

MO. DAY YR.
02/04/92

NO. 20730

TO THE ORDER OF
TRECLEN LABOPRATORIES
P.O. BOX 14642
SPOKANE WA 99214

PACEMAKER INDUSTRIES, INC.

COPY-NOT NEGOTIABLE

[redacted]

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3456

January 1, 1991

TRAINING PLAN FOR HANDLING DANGEROUS WASTE

In an effort to comply with WAC 173-303-330 of the Washington Department of Ecology Guide for Hazardous Waste Generators, 1988 Edition, this company has formulated the following training plan.

Hazardous waste generated by this company in its shop is designated F-019 "Wastewater treatment sludges from the chemical conversion coating of aluminum." No other hazardous waste is generated at this facility to our knowledge.

Historically, Pacemaker has been designated a Small Quantity Generator (SQG) wherein no more than 220 lbs. of waste is accumulated per month. Waste may be accumulated for up to 180 days on site and then must be disposed of in an approved manner.

This plan addresses the manner in which our waste is to be handled and stored. An area on the rear porch at the West end has been set aside as a storage area for hazardous waste. No other material is to be stored in this area. The stored material must be in good 55 gal. steel drums, open top, with lids and clamping rings in place. It is to be inspected at least once a week for leaks, damaged containers or other problems and the inspection to be dated and initialed on the clip board at the storage area.

The sludge in the storage area has been dried and is not subject to liquid leaks. The sludge is the residue from the bottom of rinse tanks in the conversion coating line. When the tanks are cleaned, the sludge is placed into 55 gal. drums, dried and stored in the designated storage area on the back porch until sent to a disposal area.

Care shall be taken to see that the 55 gal drums used for this purpose are sound, with no leaks, good solid bottoms, good lids and rings and are handled carfully so as not to damage them, before or after placing the sludge therein. Only employees who have signed the attached receipt for the plan are authorized to handle this material.

Robert A. Ramer, Pres.

II. Waste Designation - WAC 173-303-070

The dangerous waste regulations require generators of any solid waste that is not specifically exempted by provisions of the regulations or the Department of Ecology to designate their waste. Waste designation is the procedure for determining whether or not a solid waste is a Dangerous Waste (DW) or Extremely Hazardous Waste (EHW).

Through the process of waste designation you can determine your dangerous waste numbers and quantity exclusion limits. These are the three key pieces of information you will need to determine your generator status and successfully complete the annual report. Your waste may be assigned more than one dangerous waste number in the process of designating; this will be sorted out when you come to the section on figuring out your generator status.

Dangerous waste numbers are four digit codes whch correspond with specific wastes or properties of hazardous waste. Refer to page 25, "Dangerous Waste Numbers," for a more thorough discussion.

Quantity exclusion limits, referred to as QEL, are used to distinguish whether a dangerous waste is subject only to the small quantity generator provisions, the 220 to 2200 Lb. generator provisions, or the "fully" regulated generator provisions.

A solid waste does not have to be "solid" to be regulated. The definition includes liquid and gaseous wastes as well as solid wastes. A solid waste is any discarded material, not exempted or excluded by the regulations, that is abandoned, recycled, or inherently waste-like.

A waste is considered abandoned when it is:

disposed of;

burned or incinerated; or

accumulated, stored or treated before (or in place of) being disposed, burned, or incinerated.

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458

Feb. 1, 1991

NOTICE TO ALL EMPLOYEES

In response to Washington Dept. of Ecology letter and Order No. DE 90-E727 dated Dec. 7, 1990 and in order to comply with WAC 173-303-330 of Washington Dept. of Ecology Dangerous Waste Regulations a personnel training program has been installed at Pacemaker Industries, Inc. facility at E. 7203 Nora, Spokane, Washington. An on-the-job training meeting was held at the company plant on the above date and the following employees were present and were instructed in the performance of their duties to assure that hazardous materials and hazardous waste is handled properly. A written training plan has also been developed and is kept at the shop foremans office and the office of the general manager.

Bell, Duane _____

Bunke, Wayne _____

Dunn, Dorn _____

Johnson, Wayne _____

Overhauser, Randy _____

Purcell, Lowell _____

Sisk, David _____

Young, Joyce _____

Enright, Dan _____

_____

_____

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458

FEB. 3, 1992

NOTICE TO ALL EMPLOYEES

In response to Washington Dept. of Ecology letter and Order No. DE 90-E727 dated Dec. 7, 1990 and in order to comply with WAC 173-303-330 of Washington Dept. of Ecology Dangerous Waste Regulations a personnel training program has been installed at Pacemaker Industries, Inc. facility at E. 7203 Nora, Spokane, Washington. An on-the-job training meeting was held at the company plant on the above date and the following employees were present and were instructed in the performance of their duties to assure that hazardous materials and hazardous waste is handled properly. A written training plan has also been developed and is kept at the shop foremans office and the office of the general manager.

BELL, DUANE Duane Bell

ENRIGHT, DAN Dan E

JOHNSON, WAYNE Wayne W. Johnson

PURCELL, LOWELL Lowell Purcell

SISK, DAVID David Sisk

YOUNG, JOYCE Joyce Young

CHEMICAL PROCESSORS, INC./RESOURCE RECOVERY CORP.

2203 Airport Way So., Suite 400 • Seattle, WA 98134

Chempro (206 -0500 Resource Recc (206) 223-0900

WAD06 .812

21259

Please print 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. WAD 045 705 175
Manifest Document No. 21259
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address Pacemaker Industries Inc. P.O. Box 11527 Spokane WA 99211

4. Generator's Phone (509) 928-3456

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Resource Recovery
6. US EPA ID Number: WAD 061672812

C. State Transporter's ID

D. Transporter's Phone (206) 383-3044

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
☐ Chempro 734 So. Lucile St. Seattle, WA (206) 762-3362
☐ Chempro 1701 Alexander Tacoma, WA (206) 838-4774
☐ Chempro 625 So. 32nd St. Washougal, WA (206) 835-8594
☒ Other: Burlington Environmental 20245 76th Ave. Kent, WA.

10. US EPA ID Number
WAD 000812909
WAD 020257945
WAD 092300250
WAD 991281767

G. State Facility's ID

H. Facility's Phone (206) 872-8030

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, Hazardous Waste Solid, N.O.S. (Chromium: Nitric Acid) ORM-E, NA9189, (F019, F006, D007):		2	DM	1000	P	F019 F006 D007
b.						
c.						
d.						

RECEIVED
FEB 14 REC'D
PACEMAKER INDUSTRIES, INC.

J. Additional Descriptions for Materials Listed Above: 11A, CP# 30016 R

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR EMERGENCY TELEPHONE (509) 928-3456

☐ CERTIFICATE OF DESTRUCTION/DISPOSAL REQUIRED

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.

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 W. RAMER
Signature: Robert W. Ramer
Month Day Year: 2 6 92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Dennis G. Frank
Signature: Dennis G. Frank
Month Day Year: 02 06 92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
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: Shawn Estrada
Signature: Shawn Estrada
Month Day Year: 2 6 92

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

ORIGINAL — RETURN TO GENERATOR

SOAP

CHEMPRO™

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

CP# 49649 ✓

CHEMPRO SALES REP.: AHLST

A. GENERATOR INFORMATION

1. Generator Name: PACEMAKER INDUSTRIES, INC. 2. Generator, USEPA ID# WAD045705175
3. Facility Address: E. 7203 NORA
City: SPOKANE State: WA Zip Code: 99212
4. Generator Contact: ROBERT W. RAMIER 5. Title: PRES. 6. Phone: (509) 928 - 3456
7. Consultant (if any): 8. Company: 9. Phone: ( ) -

B. MAIL CHEMPRO INVOICES TO: 1. ☐ Generating Facility at above address, or:

2. Company Name: PACEMAKER INDUSTRIES, INC. 3. Phone: (509) 928 - 3456
4. Address: P. O. BOX 11527
City: SPOKANE State: WA Zip Code: 99211
5. Attention: ROBERT W. RAMIER

C. WASTE INFORMATION

1. Name Of Waste: SOAP SLUDGE - DRIED
2. Process Generating Waste (be specific): DEGREASE ALUMINUM SECTIONS AND SHEET ALUMINUM
3. Generator has provided the following: ☒ Sample ☐ MSDS ☐ Waste Analysis

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Physical State @ 70°F:	3. Layers:	4. Specific Gravity:	5. Free Liquids:
WHITE	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other:	☐ Multi-layered ☐ Bi-Layered ☒ Single Phased	☐ <0.8 ☐ 1.1-1.2 ☐ 0.8-1.0 ☐ 1.3-1.4 Exact/Other:	☒ No ☐ Yes %

6. pH: ☐ NA ☐ < 2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8-10 ☒ 10-12.5 ☐ > 12.5 ☐ Range:

7. Liquid Flash Point: ☐ < 70°F ☐ 70-99°F ☐ 100-139°F ☐ 140-199°F ☐ > 200°F ☐ None ☐ Closed Cup ☐ Open Cup

E. TOTAL COMPOSITION OF WASTE

1. List all hazardous and non-hazardous constituents of waste.

	RANGE MIN.	MAX.	
Sodium carbonate	20	30	%
Sodium Sulfate		<10	%
Sodium tetraborate pentahydrate	10	20	%
Sodium Salt condensed napthalene		<5	%
Sulfonic Acid			%
diethylene glycol butyl ether		<5	%
nonylphenoxy polyethoxy ethanol		<5	%
octylphenoxy polyethoxy ethanol		<5	%
tetra sodium pyrophosphate		<10	%
Non hazardous ingredients		bal.	%
			%
			%

PLEASE NOTE: The TOTAL in the chemical composition must be greater than or equal to 100%. TOTAL _____ %

2. Indicate if this waste contains any of the following:

	Not Tested	or	Concentration	
PCB	☒			ppm
Cyanides	☒			ppm
Phenolics	☐		>50	ppm
Sulfides	☒			ppm

EXPIRES 6/92

F. METALS: Indicate if this waste contains any of the following metals, and which test method was used to determine:

☐ TCLP ☐ EP TOX ☒ TOTAL MG/L ☐ Not Tested

METAL	WASTE No.	LESS THAN	ACTUAL
Arsenic (As)	D004	☒ < 5 ppm	<0.01 ppm.
Barium (Ba)	D005	☒ < 100 ppm	<1.0 ppm.
Cadmium (Cd)	D006	☒ < 1 ppm	<0.02 ppm.
Chromium (Cr)	D007	☐ < 5 ppm	>5 ppm.
Lead (Pb)	D008	☒ < 5 ppm	<0.1 ppm.
Mercury (Hg)	D009	☒ < 0.2 ppm	<0.001 ppm.
Selenium (Se)	D010	☒ < 1 ppm	<0.01 ppm.
Silver (Ag)	D011	☒ < 5 ppm	<0.1 ppm.
Nickel (Ni)		☒ < 134 ppm	<0.1 ppm.
Thallium (Ti)		☐ < 120 ppm	ppm.
Zinc (Zn)			4.4 ppm.
Copper (Cu)			<0.1 ppm.
			ppm.
			ppm.
			ppm.

TURN PAGE AND COMPLETE OTHER SIDE

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

G. OTHER CHARACTERISTICS OF THE WASTE

1. This waste is: (see instructions) ☐ Wastewater ☒ Nonwastewater
2. This waste is: (see instructions) ☒ Organic ☐ Organo-Metallic ☐ Inorganic
3. Is this waste any of the following: ☐ Ignitable Solid ☐ Water Reactive ☐ Reactive (other) ☐ Oxidizer ☐ Shock Sensitive ☒ None Apply

H. USEPA/STATE WASTE IDENTIFICATION

1. Hazardous/Dangerous Waste? ☒ Yes ☐ No
2. Dept. of Ecology Designation ☒ DW ☐ EHW
3. PCB Regulated By TSCA? ☐ Yes ☒ No
4. List ALL Applicable Waste Numbers: F019, D007

I. SHIPPING INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No
2. Reportable Quantity (RQ): 10
3. Method of Shipment: ☐ Bulk Liquid ☒ Bulk Solid ☐ Container (Type/Size): 55 GAL DRUM
4. Number of Units to Ship Now: 1
5. ☐ One Time - OR - Anticipated Volume/Units per Year: 1

US DOT DESCRIPTION:

6. PROPER SHIPPING NAME: RQ HAZARDOUS WASTE Liquid, N.O.S. (Chrome) (If generic "n.o.s.", indicate two predominant constituents in paranthesis)
7. HAZARD CLASS: ORM-E
8. DOT ID NUMBER: NA-9189 (F019, D007)
9. ADDITIONAL DESCRIPTION:

J. SPECIAL HANDLING INFORMATION

K. GENERATOR CERTIFICATION: I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

1. SIGNATURE: Robert W. Ramer
2. TITLE: Pres.
3. NAME (type or print): ROBERT W. RAMER
4. DATE: 3-23-91

FOR CHEMPRO USE ONLY

ADDITIONAL TESTING REQUIREMENTS

Analyze sample on the following basis: ☐ Total ☐ TCLP ☐ EP TOX

METALS: ☐ Arsenic (As) ☐ Selenium (Se) ☐ Barium (Ba) ☐ Silver (Ag) ☐ Cadmium (Cd) ☐ Nickel (Ni) ☐ Chromium (Cr) ☐ Thallium (Tl) ☐ Lead (Pb) ☐ Zinc (Zn) ☐ Mercury (Hg) ☐ Copper (Cu)

DISCHARGE METALS: _____ (Cd, Cr, Cu, Pb, Ni, Zn)
TC METALS (D004-11): _____ (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)
F006 TCLP METALS: _____ (Cd, Cr, Pb, Ni, Ag)
PROFILE METALS: _____ (As, Ba, Cd, Cr, Hg, Pb, Se, Ag, Cu, Ni, Zn, Tl)
OTHER (list separately): _____

MISCELLANEOUS TESTING

PCB _____ TCT _____ TPH _____ BETX _____ CHLOR-D-TECT _____ DOHRMANN _____

CYANIDE _____ ppm PHENOLICS _____ ppm OTHER _____

GC/MS TESTING ANALYSES Total _____ - OR - TCLP/ZHE _____

TC Organics (D012-D043) ☐ All - OR - Individual (list D-codes): _____

F-LISTED SOLVENTS _____ OR _____

CHLORINATED SOLVENTS _____

BILL: _____ CREDIT: _____ CHECK: _____ PO#: _____

CHEMPRO AUTHORIZATION: _____

COMMENTS: _____

WASHINGTON STATE DEPARTMENT OF ECOLOGY

TELEPHONE RECORD

Date 2/26

Time 920 ☒ a.m. ☐ p.m.

☐ CALLED BY
☒ CALLED

Mr./Ms. ROBERT RAMER,

Telephone 929 3456

Address PACEMAKER IND.

Representing

Project ORDER 90-E727

Discussed OUTSTANDING ISSUES FROM THE ORDER –
(1) PRE. NO LONGER HAS ANY DISCHARGE TO DRYWELL – RECIRCULATES/RECYCLES H₂O
(2) ALL WASTE DESIGNATED/SENT TO TSD (WILL SEND MANIFESTS ASAP)
(3) SAY THEY'VE DONE EVERYTHING ELSE, EXCEPT SAMPLE DRYWELLS – SAID A DRILLER CAME OUT & SAID THEY WOULD HAVE TO DISMANTLE BUILDINGS TO DRILL – I SAID LET'S TRY TO SAMPLE DRYWELLS BY HAND, & TO SUBMIT PLAN IN LETTER ACCOMPANYING MANIFESTS. I SAID OK..

Signed Bruce R Howard

ECY 010-46(b) Rev 8/91

TELEPHONE USE REPORT

DATE: 12/20/90

TIME: 10 am

ROUTING

SUBJECT: Pacemaker Dev

CALL FROM: / / Jan Patricio

TO: / / Bruce Howard

TELEPHONE NO.:

CALL REC'D/
MADE BY:

SUMMARY OF CALL:

Concerned that chromic acid was
disposed down dry well

dry well was installed ~14-15 years ago

Pacemaker hammered detergent down
well to clear out block; use to flush
w/ muriatic acid to clear detergent out

Bruce P. Howard
(Signature)

LETTER OF TRANSMITTAL

ACEMAKER INDUSTRIES, INC.

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

FEB 12 1991
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

TO Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Feb. 10, 1991 Job No.
Attention Bruce Howard
Re: Wastewater from rinse tanks

Gentlemen:

We are sending you [xx] attached — [ ] under separate cover — via f/c/m the following items:

[ ] Shop Drawings [xx] Submittals [ ] Plans [ ] Specifications [ ] Copy of Letters

[ ]

No. of Copies	Item Number	DESCRIPTION
1		Copy of Treclen Lab Report Number 3022. This is from a sample of the rinse water we need to dispose of. Please advise if it is acceptable to be sent to the Spokane Wastewater Treatment Plant. We have now installed a charcoal filter system and are attempting to clean the water from our rinse tanks and recyle it.

These are transmitted as checked below:

[ ] For Approval [xx] For Your Use [ ] Resubmitted [ ] Please Return ____ Copies

[ ]

Remarks:

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

TrecLen Laboratories
N. 1403 Greene St., Spokane, WA 99202 (509) 535-5501
P.O. Box 14642, Spokane, WA 99214

ANALYTICAL REPORT

Client: Pacemaker Industries
P.O. Box 11527
Spokane, WA 99211-1527
Attn: Dave Sisk

Report Number: 3022

Sample ID	mg/l Oil & Grease	pH	mg/l As	mg/l Ba	mg/l Cd	mg/l Cr	mg/l Hg	mg/l Se
Waste Water	18.4	6.20	<0.01	<1.0	<0.02	<0.1	<0.001	<0.01

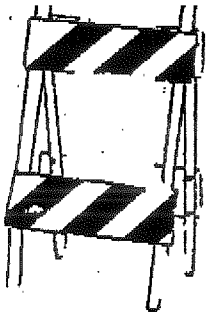
mg/l Ag	mg/l Cu	mg/l Zn	mg/l Ni	mg/l Pb
<0.1	<0.1	4.4	<0.1	<0.1

Date: 2-8-91

Signed: John Trechter

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458



DATE: Feb. 10, 1991

TIME: 11:40 a.m.

FAX TRANSMITTAL COVER

NUMBER OF SHEETS [1] PLUS THIS COVER SHEET

SENT TO FAX PHONE #: 456-6175

TO: Bruce Howard Wash DOE

FROM: Bob Ramer

SUBJECT: Bruce; this is Treclen Lab Report No. 3022 of the water in our rinse tanks. We would like to send this to the Wastewater Treatment Plant if you have no objections. There is about 4,000 gallons of this. We will recharge the tanks with clean water and use our new charcoal filter to recycle it in the future. Please FAX us an answer FAX #928-3458.

SPECIAL NOTES:

Thanks for the help.

Robert W. Ramer, Pres.

Robert W. Ramer

TrecLen Laboratories

N. 1403 Greene St., Spokane, WA 99202 (509) 535-5501
P.O. Box 14642, Spokane, WA 99214

ANALYTICAL REPORT

Report Number: 3022

Client: Pacemaker Industries
P.O. Box 11527
Spokane, WA 99211-1527
Attn: Dave Sisk

Sample ID	mg/l Oil & Grease	pH	mg/l As	mg/l Ba	mg/l Cd	mg/l Cr	mg/l Hg	mg/l Se
Waste Water	18.4	6.20	<0.01	<1.0	<0.02	<0.1	<0.001	<0.01

mg/l Ag	mg/l Cu	mg/l Zn	mg/l Ni	mg/l Pb
<0.1	<0.1	4.4	<0.1	<0.1

Date: 2-8-91

Signed: John T Trechter

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

FEB 1 1991
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

TO Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Jan. 31, 1991 Job No.

Attention Bruce Howard

Re: ABC Lab. # 34272-90
Our P.O. #20679 dated 12/19/90

Gentlemen:

We are sending you ☒ attached — ☐ under separate cover — via f/c/m the following items:

☐ Shop Drawings ☒ Submittals ☐ Plans ☐ Specifications ☐ Copy of Letters

☐

No. of Copies	Item Number	DESCRIPTION
2		Copies of ABC Labs. #34272-90 test results on standing
		water in drywells, per your order #DE 90-E727. Please
		advise whether or not this water must be hauled away, and
		whether or not it will be acceptabe at the Spokane
		Wastewater Treatment Plant.
		We have sent a sample of water from our rinse tanks to
		Treclen Labs to see if this can go to the treatment plant
		also.
		Please advise.

These are transmitted as checked below:

☐ For Approval ☒ For Your Use ☐ Resubmitted ☐ Please Return ____ Copies

☐

Remarks:

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

RECEIVED
JAN 3 1 A.M.
PACEMAKER INDUSTRIES, INC

LAB#: 34272-90

CLIENT:

Pacemaker Industries
P.O. Box 11527
Spokane, WA 99211-1527

DATE: 01-23-91
DATE RECEIVED: 12-26-90

PO# 20679

ATTN: Robert Ramer

SAMPLE DESCRIPTION: Water Sample.

CLIENT IDENTIFICATION:	ANALYSES:	RESULT:	UNITS:	TECHNICIAN:
	TCLP: Metals			
	Arsenic, As	<0.010	mg/L	jgh/ml
	Barium, Ba	<0.25	mg/L	jgh/ml
	Cadmium, Cd	<0.002	mg/L	jgh/ml
	Chromium, Cr	<0.010	mg/L	jgh/ml
	Lead, Pb	<0.010	mg/L	jgh/ml
	Mercury, Hg	<0.0010	mg/L	jgh/ml
	Selenium, Se	<0.005	mg/L	jgh/ml
	Silver, Ag	<0.010	mg/L	jgh/ml
	Copper, Cu	0.340	mg/L	jgh/ml
	Nickel, Ni	0.068	mg/L	jgh/ml
	Zinc, Zn	0.91	mg/L	jgh/ml
	Oil & Grease	3.636	g/L	me
	pH Value	6.0	mg/L	me

Respectfully Submitted,
ABC Laboratories, Inc.

W.E. Burkhardt
President

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

RECEIVED
JAN 15 1991
PACEMAKER INDUSTRIES

LAB#: 34272-90

CLIENT:

Pacemaker Industries
P.O. Box 11527
Spokane, WA 99211-1527

DATE: 01-23-91
DATE RECEIVED: 12-26-90

PO# 20679

ATTN: Robert Ramer

SAMPLE DESCRIPTION: Water Sample.

CLIENT IDENTIFICATION:	ANALYSES:	RESULT:	UNITS:	TECHNICIAN:
	TCLP: Metals			
	Arsenic, As	<0.010	mg/L	jgh/ml
	Barium, Ba	<0.25	mg/L	jgh/ml
	Cadmium, Cd	<0.002	mg/L	jgh/ml
	Chromium, Cr	<0.010	mg/L	jgh/ml
	Lead, Pb	<0.010	mg/L	jgh/ml
	Mercury, Hg	<0.0010	mg/L	jgh/ml
	Selenium, Se	<0.005	mg/L	jgh/ml
	Silver, Ag	<0.010	mg/L	jgh/ml
	Copper, Cu	0.340	mg/L	jgh/ml
	Nickel, Ni	0.068	mg/L	jgh/ml
	Zinc, Zn	0.91	mg/L	jgh/ml
	Oil & Grease	3.636	g/L	me
	pH Value	6.0	mg/L	me

Respectfully Submitted,
ABC Laboratories, Inc.

W.E. Burkhardt
President

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

RECEIVED
DEC 28 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

TO Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Dec. 27, 1990 Job No.

Attention Bruce Howard

Re:

Gentlemen:

We are sending you ☒ attached — ☐ under separate cover — via f/c/m the following items:

☒ Shop Drawings ☒ Submittals ☐ Plans ☒ Specifications ☒ Copy of Letters

☐

No. of Copies	Item Number	DESCRIPTION
1		Copy of letter from Raviv & Patricio Assoc. dated December 18, 1990
1		Layout drawing of our tank line
1 ea.		MSDS sheets on the chemicals used in the tank line and material used to clean silk screens.

These are transmitted as checked below:

☒ For Approval ☐ For Your Use ☐ Resubmitted ☐ Please Return _____ Copies

☐

Remarks: Submitted for your comments and recommendations.

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

RAVIV & PATRICIO ASSOCIATES, INC.

Hydrogeology & Environmental Consultants

RECEIVED

DEC 18 1990

PACEMAKER INDUSTRIES, INC.

December 18, 1990

Bob Ramer
Pacemaker Industries, Inc.
P.O. Box 11527
Spokane, WA 99211

Dear Mr. Ramer:

RE: DOE Order No. 90-E 727, RPAI Ref. No. 90C177

Raviv & Patricio Associates, Inc. (RPAI) has reviewed the information you have provided and developed a sampling plan in response to the Washington Department of Ecology (DOE) order dated December 7, 1990. Assuming that there is substance to DOE's concern over your dry well, we feel that it is likely that you will ultimately require a more complete characterization of the area of concern and to develop a remedial action plan. The costs associated with these actions can be significant, particularly considering your company's fragile financial condition. Thus, RPAI has attempted to develop a phased approach which is longer in term than normally preferred but should provide an approach the DOE will accept. I suggest that if you concur with this approach that you send a copy of this letter, requesting their review and input in partial satisfaction of their order, Item No. 5.

The approach we recommend has been broken down into five tasks.

Task 1. It is necessary to prepare a process description. This description should indicate how the sheet metal baths are operated and to describe the types of chemicals which are generally used and which may have been used in the past. You or your staff can do most of the draft work on this task and RPAI will assist with a review, asking you pertinent questions to fill in any gaps. It is necessary to document the shop's on going processes as a basis for future analytical analysis. Your description of the process should include listing chemical quantities or values that might be available. For example; how may gallons do the tanks hold, what type and how much acid is added, how often, what is its concentration, do you measure the PH, etc. Also, any detail about the dry well construction, size, shape, etc, should be provided. When did the first well receive waste water and what was its condition when you added the second well.

N. 408 Mullan Rd., Ste. 107 • Spokane, Washington 99206 • (509) 927-1993 / Mobile (509) 993-1721
57 East Willow Street • Millburn, New Jersey 07041 • (201) 564-6006 / FAX (201) 564-6442

Task 2. The water in the dry wells should be sampled. Once RPAI has these results we need to pump the wells as dry as possible and keep any other process water from entering the wells. At least one test will be needed to determine if we are able to dispose of the water to the Spokane Treatment Plant or determine if other off site disposal might be needed. Other disposal facilities may require additional information and testing.

Task 3. The sludge in the bottom of the wells should be sampled. We will attempt to characterize or profile the sludge. If we can capture 3 or 4 feet of sludge material in a tube, we can test for the metals and acids of concern from the list you provide as task 1. The sampling will be attempted by driving a "spoon" or pipe into one of the wells as deep as possible and carefully extracting the sludge. Several analyses may be needed but the initial testing will be similar to the suite of tests to established for the waste water in task 2.

Task 4. Sample the extent of material leakage from the dry well and its chemical variation from contained sludge and waste water. A single hole angered into the vicinity of the dry wells through the concrete floor can be provided after the results of the sludge tests are received. If the sludge results indicate that toxic or hazardous materials may be present, the cost of additional drilling and sampling as well as the type of chemicals constituents to be tested can be modified. "TCLP" metals, chromic acid, and chromium (III) and (VI) are currently of specific concern. These metals and chemical constituents are very stable, thus, testing by the laboratory might also be delayed for some of the samples collected, in an attempt to distribute the expense over a greater period of time.

Task 5. Prepare a letter report for DOE review which offers the task results. Their technical personnel will determine how we may have to proceed beyond this initial round of testing. They may require additional sampling beyond that outlined above. If allowed it will probably be in your best interest (highest degree of control) to maintain a voluntary clean-up status. To do this, it will be necessary to define for DOE's review and approval a logical course of action and to continue to make progress on that course.

We propose to initiate the first two tasks as soon as your approval is received from the DOE. Water and sludge sampling can be accomplished the same time. We propose the activities during the week of January 7th. You can initiate these tasks without hearing from DOE.

The cost of these activities has been estimated for your review. This estimate should be expected to vary and be refined somewhat as we proceed. Factors such as your contribution to task 1 and assistance during sampling will help to reduce the costs. Items such as the required levels of laboratory testing are largely fixed in cost, although, quantity discounts are sometimes available and if a larger testing program is ahead, a reduced cost might be negotiated. We have several laboratories to choose from and they can compete for your work.

The cost estimate for the proposed scope of work is broken down by task as follows:

TASK	ACTIVITY	ESTIMATED COST
1	Process Definition	400.00
2	Water Sample	1200.00
3	Sludge Sample	600.00
4	Auger Soil Sample *	1460.00
5	Report Results to DOE	500.00
	Total Estimated Cost is:	$5160.00

* Auger costs will vary with depth achieved.

Thus, RPAI estimates that a sampling of the dry well and vicinity will cost less than $5,200.00. This cost would be distributed over the period between January and February with the majority of expense coming from laboratory billings in February.

If this approach is agreeable to you, please notify Bruce Howard outlining the five tasks RPAI has suggested. I suggest that you call him first to discuss this and then follow that conversation with your letter outlining the steps as I have indicated. If, during your conversation he does not agree or wishes to change the approach in some fashion, please call me back and review the suggested changes because they may have cost or technical implications.

At present, we have invested several hours in review, discussion and meetings at no cost to you. Given your companies financial situation, it is necessary that RPAI collects a $2500.00 retainer to be applied against future billings and that our account stays within a 30 day payment cycle to allow work to continue. Your approval of our standard terms and conditions will also be needed before we will schedule any additional activity on this matter. We look forward to the opportunity to serve as your hydrogeology consultant.

Sincerely Yours,
RAVIV & PATRICIO ASSOCIATES, INC.

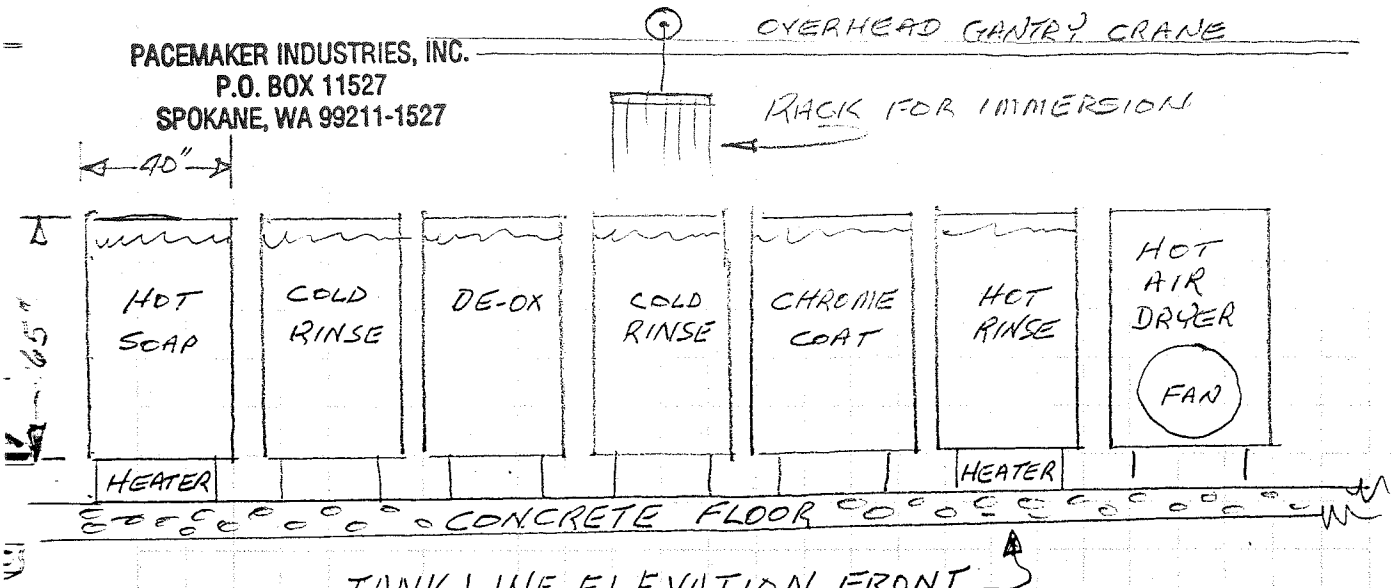
Jan G. Patricio
Vice President

Enclosure

JGP/dv

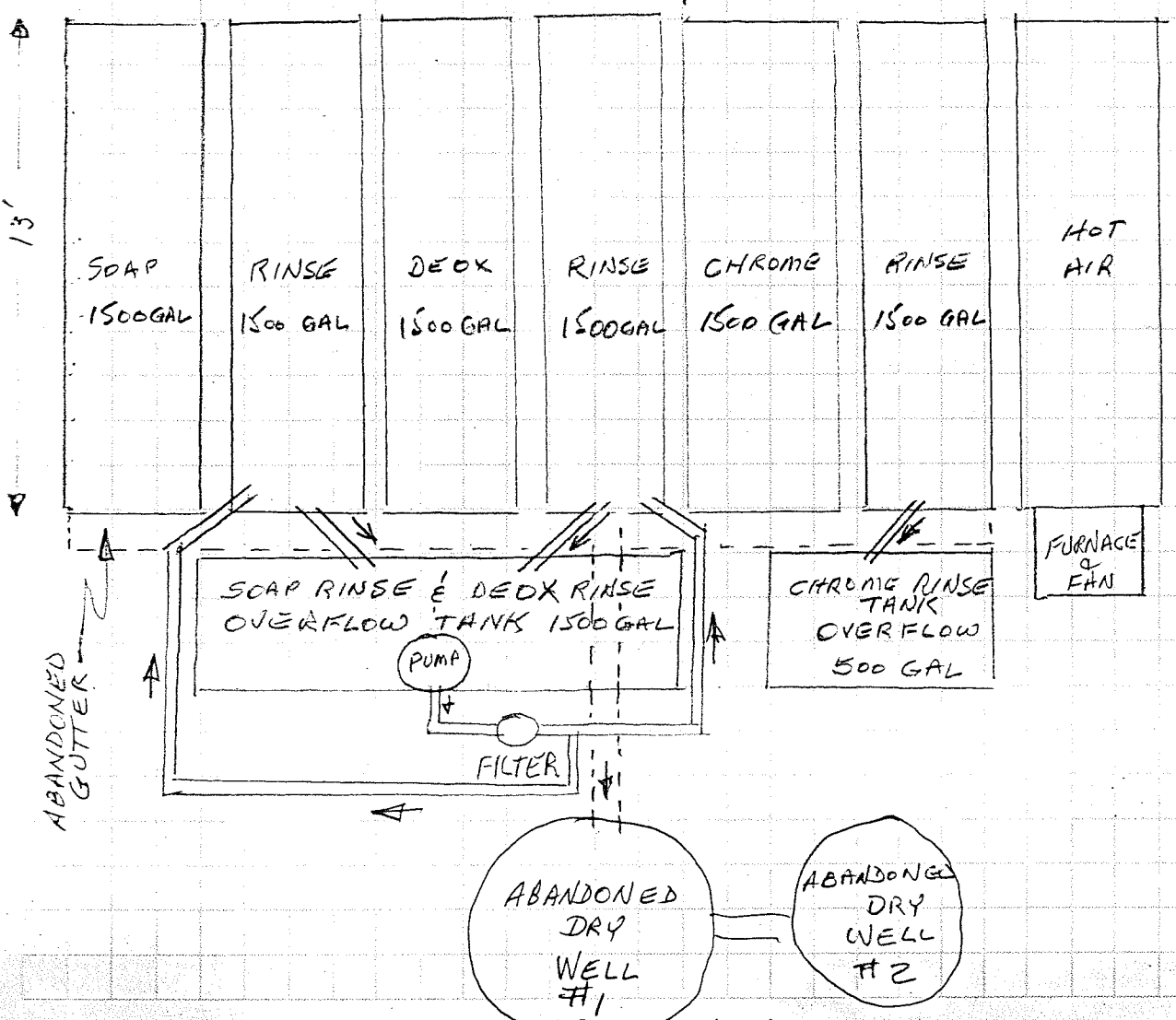
PROJECT _____ DATE 12, 26, 90

PACEMAKER INDUSTRIES, INC.
P.O. BOX 11527
SPOKANE, WA 99211-1527



TANK LINE ELEVATION FRONT

PLAN VIEW



INTERCONTINENTAL CHEMICAL CORPORATION
4660 Spring Grove Ave., Cincinnati, Ohio 45232 513-541-7100

MATERIAL SAFETY DATA SHEET

01: PRODUCT IDENTIFICATION. ICC 831 (07/13/90)

02: HAZARDOUS INGREDIENTS.
ICC 831 contains no hazardous ingredients.

03: PHYSICAL DATA.
Initial Boiling Point: >400°F.
Water Soluble: Partial.
Vapor Density: >1 (Air = 1).
Odor: Mild.
SCAQMD Rule 443.1: 1052 g/l.
Initial Evaporation Rate: <1 (Butyl Acetate =1).

Vapor Pressure: <0.3 mmHg. @ 20°C.
Percent Volatile: >5.
Specific Gravity: >1.
Appearance: Clear liquid.
SCAQMD Rule 1130: 0.14#/gallon.

04: FIRE AND EXPLOSION HAZARD DATA.
Non-Flammable (Title 29 CFR 1910.106).
Flammable Limits: Not tested.
Extinguishing Media: Water; Class A,B or C Extinguisher
No Special Fire Fighting Procedures
NFPA 704 Code System Rating: **Health 0; Flammability 1; Reactivity 0.**

Flash Point: >210° F. (PMCC)
Fire Hazards: None.

05: HEALTH HAZARD DATA.
Non-Toxic (when used a
No Carcinogenic Compo

Overexposure may cause

First Aid Procedure:

Used to clean out screens - Water wash out.

06: REACTIVITY DATA.
No Photochemically Reac
Stability:
Incompatibility:
Conditions to Avoid:
Hazardous Polymerization:
Hazardous Decomposition: Burning may produce CO and CO_2.

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Percent Volatile: >5.
Specific Gravity: >1.
Appearance: Clear liquid.
SCAQMD Rule 1130: 0.14#/gallon.

04: FIRE AND EXPLOSION HAZARD DATA.
Non-Flammable (Title 29 CFR 1910.106).
Flammable Limits: Not tested.
Extinguishing Media: Water; Class A,B or C Extinguisher
No Special Fire Fighting Procedures
Flash Point: >210° F. (PMCC)
Fire Hazards: None.
NFPA 704 Code System Rating: **Health 0; Flammability 1; Reactivity 0.**

05: HEALTH HAZARD DATA.
Non-Toxic (when used according to directions).
No Carcinogenic Compounds (IARC; NTP; OSHA).

Overexposure may cause irritation to eyes; skin; nose; or mouth.

First Aid Procedure:		
	Eyes:	Flush with water.
	Skin:	Rinse with water.
	Inhalation:	Remove to fresh air.
	Ingestion:	Rinse mouth. Drink water or milk.

06: REACTIVITY DATA.
No Photochemically Reactive Solvents.

Stability:	Stable.
Incompatibility:	Strong oxidizing agents.
Conditions to Avoid:	Welding arcs, open flame.
Hazardous Polymerization:	Cannot occur.
Hazardous Decomposition:	Burning may produce CO and CO_2.

07: SPILL OR LEAK PROCEDURES.

Drain-Safe (when used in accordance with directions).
No Petroleum Solvents or Derivatives.
Spilled material may be wiped with rags or mop. Larger quantities may be flushed with water, and if available, squeegeed to drain.

08: CONTROL MEASURES.

No special equipment requirement. Adequate ventilation, splash proof goggles and chemical-resistant gloves are recommended for use when handling any chemical.

09: PRECAUTIONS FOR SAFE HANDLING AND STORAGE.

Containers should be kept closed when not in use. Product should not be contaminated with other material. Containers stored outdoors should have bungs closed and protective covering; avoid storing in standing water. Do not reuse container.

10: REGULATORY INFORMATION.

ICC 831 contains the following chemicals that are subject to the reporting requirements of SARA Title III, Section 313 and 40 CFR 372. (Note: * indicates item is a trade secret).

Chemical or Catagory	CAS Reg. No.	Upper Bound % by Weight
Glycol Ethers*	Not Applicable	15

INTERCONTINENTAL CHEMICAL CORPORATION believes that the data contained herein are factual and the opinions expressed are those of qualified experts. The data are not to be taken as a representation for which Intercontinental Chemical Corporation assumes legal responsibility. They are offered for your consideration and verification.

Disclosure or reproduction, for other than safety and medical purposes, is prohibited without authorization of OAKITE PRODUCTS, INC.

MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE 8088 PD
60-DL-57 8088
HMIS: 1-0-0-I

SECTION I

TRADE NAME (If None, Put Chemical)	Oakite 8088 PD (60-DL-57)	EMERGENCY TELEPHONE NO. (201) 46 -6900 (7am-5pm)
CHEMICAL NAME AND SYNONYMS	NA; Mixture	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Inc.	800-424-9300 (Chemtrec)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road, Berkeley Heights, NJ 07922	

SECTION II – HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Tetrasodium Pyrophosphate (CAS# 7722-88-5)	<10	5	NE	mg/m^3
Sodium Carbonate (CAS# 497-19-8)	20-30	NE	NE	
Sodium Sulfate (CAS# 7757-82-6)	<10	10	15	mg/m^3
Sodium Tetraborate Pentahydrate (CAS# 1303-43-4)	10-20	1	NE	mg/m^3
Sodium Salt Condensed Naphthalenesulfonic Acid (CAS# 9084-06-4)	<5	NE	NE	
Diethylene Glycol Butyl Ether (CAS# 112-34-5)	<5	NE	NE	
Nonylphenoxy Polyethoxy Ethanol (CAS# 9016-45-9)	<5	NE	NE	
Octylphenoxy Polyethoxy Ethanol (CAS# 9036-19-5)	<5	NE	NE	
Non-hazardous ingredients * -	Bal.			

*Unidentified ingredients are consid...
hazardous u...
Standard (2...

"SOAP TANK
4 OZ. PER GAL OF WATER
PH HELD BETWEEN 8 AND 10

BOILING POINT (°F)	8.4 lbs/gal
VAPOR PRESSURE (...	NA
VAPOR DENSITY (AIR...	9.4
SOLUBILITY IN WATE...	NA
APPEARANCE AND OD...	

S...

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	LEL NA	UEL NA
EXTINGUISHING MEDIA	Use media suitable for surrounding material.			
SPECIAL FIRE FIGHTING PROCEDURES	No special procedures required			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.			

NA - Not Applicable NE - Not Established UN - Unavailable

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MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE 8088 PD
60-DL-57 8088
HMIS: 1-0-0-I

SECTION I

TRADE NAME (If None, Put Chemical)	Oakite 8088 PD (60-DL-57)	EMERGENCY TELEPHONE NO. (201) 46 -6900 (7am-5pm)
CHEMICAL NAME AND SYNONYMS	NA; Mixture	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Inc.	800-424-9300 (Chemtrec)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road, Berkeley Heights, NJ 07922	

SECTION II — HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Tetrasodium Pyrophosphate (CAS# 7722-88-5)	<10	5	NE	mg/m^3
Sodium Carbonate (CAS# 497-19-8)	20-30	NE	NE	
Sodium Sulfate (CAS# 7757-82-6)	<10	10	15	mg/m^3
Sodium Tetraborate Pentahydrate (CAS# 1303-43-4)	10-20	1	NE	mg/m^3
Sodium Salt Condensed Naphthalenesulfonic Acid (CAS# 9084-06-4)	< 5	NE	NE	
Diethylene Glycol Butyl Ether (CAS# 112-34-5)	< 5	NE	NE	
Nonylphenoxy Polyethoxy Ethanol (CAS# 9016-45-9)	< 5	NE	NE	
Octylphenoxy Polyethoxy Ethanol (CAS# 9036-19-5)	< 5	NE	NE	
Non-hazardous ingredients *	Bal.			

*Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29 CFR 1910.1200)

SECTION III — PHYSICAL DATA

BOILING POINT (°F)	NA	SPECIFIC GRAVITY (H_2O=1) Bulk Density	8.4 lbs/gal
VAPOR PRESSURE (MM Hg.)	NA	PERCENT VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR=1)	NA	pH @ 40 g/l	9.4
SOLUBILITY IN WATER	Appreciable	EVAPORATION RATE Butyl Acetate = 1	NA
APPEARANCE AND ODOR	Off-white powder; mild odor.		

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	LEL NA	UEL NA
EXTINGUISHING MEDIA	Use media suitable for surrounding material.			
SPECIAL FIRE FIGHTING PROCEDURES	No special procedures required			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.			

NA - Not Applicable NE - Not Established UN - Unavailable

SECTION V – HEALTH HAZARD INFORMATION

SYMPTOMS/EFFECTS OF OVEREXPOSURE Inhalation of dust may cause irritation of mucous membranes. Direct contact causes irritation of eyes. Prolonged skin contact may cause irritation. Although absorption through intact skin is unlikely, contact with burned or abraded skin may result in systemic poisoning and weakness. Severe cases may be characterized by shock, rapid heartbeat, and cyanosis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

FIRST AID

EYES Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

SKIN Wash affected area with large amounts of water. Get medical attention if irritation persists.

INHALATION Move victim to fresh air. Get medical attention.

INGESTION: Contact local poison control center or physician IMMEDIATELY.

SECTION VI – REACTIVITY DATA

STABILITY Normally stable.

INCOMPATIBLE MATERIALS Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS None known.

SECTION VII – SPILL OR LEAK PROCEDURES

PROCEDURES Wear personal protective equipment (See Section VIII). Carefully clean up spilled material and place in dry container for disposal. Avoid dust generation. Flush area with plenty of water.

WASTE DISPOSAL METHOD Dispose of in accordance with local, state and federal regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY If TLV is exceeded or for symptoms of overexposure wear a NIOSH approved respirator for dust/mist.

EYEWEAR Wear chemical safety goggles.

CLOTHING/GLOVES Wear neoprene or other chemical resistant gloves and clothing as needed to prevent prolonged or repeated skin contact.

VENTILATION Local exhaust may be necessary for some handling/use conditions. Specific needs should be addressed by supervisory or health/safety personnel.

SECTION IX – SPECIAL PRECAUTIONS

OAKITE 8088 PD. Store in closed container in dry area.

This product does not contain any carcinogens (at 0.1% or greater) as defined by IARC, NTP, or OSHA.

APPROVAL NAME John M. Flood TITLE Mgr. Health & Environmental Dept. 1/15/00

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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: Industrial Chemical Products/West, Inc.	EMERGENCY TELEPHONE NO.: (213) 961-9581
ADDRESS (Number, Street, City, State, and ZIP Code): 15378 Proctor Avenue, City of Industry, CA 91745	
CHEMICAL NAME AND SYNONYMS: Acid Desmutter	TRADE NAME AND SYNONYMS: Deoxidizer HS
CHEMICAL FAMILY: Acid Liquid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

	%	TLV (Units)
Nitric Acid	50	
Hydrofloric	15	

Added to De Ox Tank in solution 13% product 87% water PH held between .5 and 1.0

BOILING POINT (°F	
VAPOR PRESSURE	1.20
VAPOR DENSITY (Air=1)	0
SOLUBILITY IN WATER	< 1
APPEARANCE AND ODOR	Clear, colorless liquid with acrid odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

(Continued on reverse side)

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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CHEMICAL FAMILY: Acid Liquid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Nitric Acid	< 50	
Hydrofloric Acid	< 15	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	>	212°F	SPECIFIC GRAVITY (H_2O=1)	1.20
VAPOR PRESSURE (mm Hg.)	>	1	PERCENT, VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR=1)	<	1	EVAPORATION RATE (Buac =1)	< 1
SOLUBILITY IN WATER		Complete		
APPEARANCE AND ODOR	Clear, colorless liquid with acrid odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Mixture unknown
EFFECTS OF OVEREXPOSURE	Can cause burns to skin. Corrosive to eyes.
EMERGENCY AND FIRST AID PROCEDURES	Flush affected area with copious volumes of water. Seek immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATABILITY *(Materials to avoid)*	Strong Alkalis, Oxidizers		
HAZARDOUS DECOMPOSITION PRODUCTS	Nitrous oxide		
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Avoid contact with spill, flush material to treatment drain with water.
~~Rinse spill area with water.~~

WASTE DISPOSAL METHOD: Neutralize with mild alkali to Ph 6-8.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*: Recommended

VENTILATION	LOCAL EXHAUST	Exhaust Fan	SPECIAL
	MECHANICAL *(General)*	Recommended	OTHER
PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Safety eye goggles
OTHER PROTECTIVE EQUIPMENT	Rubber Apron		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store near oxidizers or cyanide.

OTHER PRECAUTIONS

GPO 834-180

Form OSHA-20
Rev. May 72

product, not dilutions of product.

...roduct... il purp... ...tion of ...ssure of ... ...safety and ... ...plied without quinoration of ...AKITE PRODUCTS, INC.

U.S. DEPARTMENT OF LABOR
Occupa[illegible]al Safety and Health Administration

Form Approved
OMB No. 44-R1387

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: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: (201) 464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite ChromiCoat L-25
CHEMICAL FAMILY: Acid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZ[illegible]	TLV (Units)
Chromic acid and [illegible]	0.05mg/M^3
Nitric acid	2 PPM
Hydrofluoric aci[illegible]	3 PPM

Added to Chrome tank in solution 2% product 98% water

PH held between 1.5 and 2.0

BOILING POINT (°F.)	142 at 68°F.
VAPOR PRESSURE (mm Hg.)	[illegible]gligible
VAPOR DENSITY (AIR=1)	[illegible]gligible
SOLUBILITY IN WATER	[illegible].6

APPEARANCE AND ODOR: As received, burnt orange liquid; as used, orange solution; no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): None.	FLAMMABLE LIMITS: N/A	LEL	UEL

EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: If necessary, use water. Avoid spattering or splashing this material. Wear full protective clothing including adequate respiratory protection.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong oxidizing material. Contact with organic materials or oxidizable materials may cause violent reactions.

(Continued on reverse side)
N/A = not applicable
11/15/82
Form OSHA-20
Rev. May 72

product, not dilutions of product.

Use of reproduction of ... safety and ... without quotation of ... OAKITE PRODUCTS, INC.

U.S. DEPARTMENT OF LABOR
Occupa... al Safety and Health Administration

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OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

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CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite ChromiCoat L-25
CHEMICAL FAMILY: Acid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (Units)
Chromic acid and chromates	(as Cr 5.6%) (as CrO_3)	10	0.05mg/M^3
Nitric acid		<5	2 PPM
Hydrofluoric acid	(as F 1.4%)	<5	3 PPM

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	Unknown	SPECIFIC GRAVITY (H_2O=1)	1.142 at 68°F.
VAPOR PRESSURE (mm Hg.)	Unknown	PERCENT, VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	Unknown	EVAPORATION RATE (butyl acetate = 1)	Negligible
SOLUBILITY IN WATER	Complete	pH @ 2.5% by volume	1.6

APPEARANCE AND ODOR: As received, burnt orange liquid; as used, orange solution; no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): None.	FLAMMABLE LIMITS: N/A	LEL	UEL

EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: If necessary, use water. Avoid spattering or splashing this material. Wear full protective clothing including adequate respiratory protection.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong oxidizing material. Contact with organic materials or oxidizable materials may cause violent reactions.

(Continued on reverse side)
N/A = not applicable
11/15/82
Form OSHA-20
Rev. May 72

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Mixture: unknown. See Section II.

EFFECTS OF OVEREXPOSURE

Direct contact causes severe burns of eyes and skin that may or may not be immediately visible. Inhalation of mist may cause irritation of mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

See attached sheet.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		N/A
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)* Combustible, oxidizable or organic materials; chlorine-releasing materials; alkaline materials.

HAZARDOUS DECOMPOSITION PRODUCTS

If heated to decomposition may emit acidic fumes and fumes of oxide of nitrogen.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		N/A
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Spills or leaks should be contained with a non-combustible absorbent such as vermiculite, dry sand or earth. Collect spilled material. Flush area with water and neutralize remaining traces with soda ash. Dispose of all materials by appropriate waste disposal method.

WASTE DISPOSAL METHOD

See attached sheet.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)* None required under normal use conditions.

VENTILATION	LOCAL EXHAUST	SPECIAL
	Provide adequate ventilation for removal of mist.	
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Neoprene, vinyl or acid resistant	Safety goggles.

OTHER PROTECTIVE EQUIPMENT

Neoprene, vinyl or acid resistant apron, sleeves or other suitable protective clothing; face shield. Recommend eye wash and safety shower near use area.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid contact with eyes, skin and clothing. Wash very thoroughly with soap and water after handling. Avoid breathing mist. Store out of direct sunlight at moderate temperatures below 120°F. Before opening, relieve any pressure build-up in drum by loosening closure slowly. Store away from combustible, organic or readily oxidizable materials. Avoid contact or mixing with chlorine-releasing materials. Avoid contact with glass, ceramic or concrete. If contact is made, rinse surface promptly and thoroughly with water. Keep container closed when not in use. (If slight precipitation occurs on prolonged storage, agitate to restore).

OTHER PRECAUTIONS

The information herein is given in good faith, but no warranty expressed or

Disclosure or reproduction, for other than safety and medical purposes, is prohibited without authorization of OAKITE PRODUCTS, INC.

MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE CHROMICOAT T 3

27-CL-219 3541
HMIS 3-0-1-J

SECTION I

		EMERGENCY TELEPHONE NO.
TRADE NAME (If None, Put Chemical)	Oakite ChromiCoat T 3	(201) 464-6900 (7AM-5PM)
CHEMICAL NAME AND SYNONYMS	NA - Mixture	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Incorporated	(800) 424-9300 (CHEMTREC)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road Berkeley HeightsNJ 07922	

SECTION II – HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Nitric acid (CAS #7697 37 2)	5-15	2	2	PPM
Chromic acid (CAS #13530 68 2) -(as Chromium VI, soluble)	<10	0.05	0.1	MG/M3
Hydrogen fluoride (CAS #7664 39 3) -as F, ceiling	<10	2.5	2.5	MG/M3
Sodium tungstate (CAS #13472 45 2) -(soluble compounds, as W)	<5	1	NE	MG/M3
Magnesium silicofluoride (CAS #16949 65 8) -(Fluorides, as F)	<5	2.5	2.5	MG/M3
Non-hazardous ingredients*	Bal.	NA	NA	

*Unidentified in
hazardous under
Standard (29 CFR

4-25
Added to Chrome as needed to lower PH.

BOILING POINT (°F)	
VAPOR PRESSURE (MM Hg.)	1.141
VAPOR DENSITY (AIR=1)	0
SOLUBILITY IN WATER	1.7
APPEARANCE AND ODOR Re	1

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) NONE	FLAMMABLE LIMITS	LEL NA	UEL NA
EXTINGUISHING MEDIA	Use media suitable for surrounding materials.		
SPECIAL FIRE FIGHTING PROCEDURES	Wear Self-Contained Breathing Apparatus (SCBA).		
UNUSUAL FIRE AND EXPLOSION HAZARDS	Oxidizer; dangerous fire risk on contact with combustible materials.		

NA - Not Applicable NE - Not Established UN - Unavailable

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MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE CHROMICOAT T 3

27-CL-219 3541
HMIS 3-0-1-J

SECTION I

TRADE NAME (If None, Put Chemical)	Oakite ChromiCoat T 3	EMERGENCY TELEPHONE NO. (201) 464-6900 (7AM-5PM)
CHEMICAL NAME AND SYNONYMS	NA - Mixture	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Incorporated	(800) 424-9300 (CHEMTREC)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road Berkeley HeightsNJ 07922	

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Nitric acid (CAS #7697 37 2)	5-15	2	2	PPM
Chromic acid (CAS #13530 68 2) -(as Chromium VI, soluble)	<10	0.05	0.1	MG/M3
Hydrogen fluoride (CAS #7664 39 3) -as F, ceiling	<10	2.5	2.5	MG/M3
Sodium tungstate (CAS #13472 45 2) -(soluble compounds, as W)	<5	1	NE	MG/M3
Magnesium silicofluoride (CAS #16949 65 8) -(Fluorides, as F)	<5	2.5	2.5	MG/M3
Non-hazardous ingredients*	Bal.	NA	NA	

*Unidentified ingredients are not considered hazardous under the Federal Hazard Communication Standard (29 CFR 1910.1200).

SECTION III - PHYSICAL DATA

BOILING POINT (°F)	>212	SPECIFIC GRAVITY (H_2O=1)	1.141
VAPOR PRESSURE (MM Hg.)	NE	PERCENT VOLATILE BY VOLUME (%) minus water	0
VAPOR DENSITY (AIR=1)	NE	pH (2.5% solution)	1.7
SOLUBILITY IN WATER	Complete	EVAPORATION RATE (Water=1)	1

APPEARANCE AND ODOR: Red-orange liquid; odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS LEL: NA	UEL: NA

EXTINGUISHING MEDIA: Use media suitable for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES: Wear Self-Contained Breathing Apparatus (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Oxidizer; dangerous fire risk on contact with combustible materials.

NA - Not Applicable NE - Not Established UN - Unavailable

SECTION V HEALTH HAZARD INFORMATION

SYMPTOMS/EFFECTS OF OVEREXPOSURE Inhalation may cause severe respiratory irritation. Exposure to high concentrations may cause pneumonitis and pulmonary edema. Symptoms include coughing, chest pain and difficulty breathing. ONSET OF SYMPTOMS MAY BE DELAYED. Severe skin burns. Eye contact causes severe or permanent damage. Chronic overexposure to some Chromium VI compounds can cause bronchitis, skin sensitization, and kidney and liver damage. Some Chromium VI compounds are known carcinogens (IARC, NTP). MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

FIRST AID

EYES Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. Get prompt medical attention.

SKIN Immediately remove contaminated clothing; wash skin with large amounts of water for at least 15 minutes. Get prompt medical attention.

INHALATION Move victim to fresh air and restore breathing if necessary. Stay with victim until arrival of emergency medical personnel.

INGESTION Contact local poison control center or physician IMMEDIATELY!

SECTION VI – REACTIVITY DATA

STABILITY Normally Stable.

INCOMPATIBLE MATERIALS Alkalies, combustibles, reducing agents. Contact with certain metals may yield explosive hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS Nitrogen dioxide, Chromium trioxide, Hydrogen, Hydrogen fluoride gas, Fluorine

SECTION VII – SPILL OR LEAK PROCEDURES

PROCEDURES Wear personal protective equipment (See Section VIII). Remove heat and ignition sources. Ventilate area. Neutralize with soda ash or lime. Clean up with noncombustible absorbant material.

WASTE DISPOSAL METHOD Dispose of in accordance with Local, State, and Federal regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY If TLV is exceeded, wear a NIOSH-approved chemical cartridge respirator or gas mask containing non-oxidizable sorbent.

EYEWEAR If splash potential exists wear chemical splash goggles or faceshield.

CLOTHING/GLOVES If potential for skin contact exists, wear neoprene or other chemical resistant gloves and apron or coveralls and/or foot coverings, as needed.

VENTILATION Local exhaust may be necessary under some handling/use conditions. Specific needs should be addressed by supervisory or health/safety personnel.

SECTION IX – SPECIAL PRECAUTIONS

OAKITE CHROMICOAT T-3 CORROSIVE. OXIDIZER. Store in closed container in cool area. NOTE: IF DILUTING, ALWAYS ADD THIS PRODUCT SLOWLY TO WATER WITH CONSTANT STIRRING. Do not add this product to chlorine-releasing materials.

APPROVAL Timothy J. Colliton, CIH May 15, 1987

NAME TITLE DATE

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

RECEIVED
DEC 27 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

TO Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Dec. 26, 1990 Job No.

Attention Bruce Howard

Re: Our P.O. #20679 to ABC Lab

Gentlemen:

We are sending you ☐ attached — ☐ under separate cover — via f/c/m the following items:

☐ Shop Drawings ☐ Submittals ☐ Plans ☐ Specifications ☐ Copy of Letters

☐

No. of Copies	Item Number	DESCRIPTION
1		Copy of our P.O. 20679 to ABC Lab to test a one gallon sample of the standing water in our dry well. I discussed this at length with Mike Coster, a chemist at the wastewater treatment plant. He was very helpful and advised that after we get the test results back he will let us know how to dispose of the water. I am also sending him MSDS sheets on the chemicals we use in the tanks and a drawing of our treatment layout. When we get hooked up to the sewer we hope to be able to dispose of our wastewater that way. Since we have a 1550 gallon water tank and our own trucks, will we be able to truck this wastewater to the treatment plant ourselves? Will we need a special permit?
		Thanks for your help and we wish you Happy Holidays.

These are transmitted as checked below:

☐ For Approval ☒ For Your Use ☐ Resubmitted ☐ Please Return _____ Copies

☐

Remarks:

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

pacemaker industries, inc.

P. O. Box 11527
Spokane, Washington 99211-1527
Telephone (509) 928-3456
FAX (509) 928-3458

PURCHASE ORDER

№ 20679

TO
ABC LABORATORIES
4922 E. UNION AV.
SPOKANE, WA 99212

Ship To **PACEMAKER INDUSTRIES, INC.**
☐ E. 7203 NORA AVE. — SPOKANE, WASHINGTON 99212
☒ WILL CALL
☐ OTHER

DATE	DELIVERY DATE	SHIP VIA	F.O.B.	TERMS	PURCHASE ORDER
2-19-90	3 WEEKS	W/C		NET 30	

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	PLEASE TEST THE ATTACHED WATER SAMPLE, WE INTEND TO SHIP APPROXIMATELY 200 GALS OF THIS WATER TO THE SPOKANE WASTEWATER TREATMENT PLANT IF IT IS ACCEPTABLE AFTER TESTING. THEY (MIKE COSTER) HAVE ASKED FOR TESTS AS FOLLOWS; PH, FATS-OILS-GREASE – TCLP – AS, HG, SE, CD, AG, CR, PB, COPPER, ZINC, + NICKEL, PLEASE CALL US AT THE ABOVE NUMBER WITH A QUOTE TO DO THIS TESTING		
	E.P. TOXICITY NOT REQ'D.		

☐ CONFIRMING PHONE ORDER
OF (DATE) _____
FROM _____
TO _____
DO NOT DUPLICATE

☐ ORIGINAL ORDER
NOT A CONFIRMATION

INTERNAL USE ONLY
G/L ACCT. R + M
JOB NO.
GIS NO.

☒ TAXABLE
☐ TAX EXEMPT WA
WA C328-54380

Robert A. Ramer
Authorized Signature

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458

RECEIVED
DEC 17 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

December 14, 1990

Washington Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Attention: Mr. Bruce Howard

Dear Mr. Howard:

We acknowlege receipt of Order No. DE 90-E727 and are moving toward compliance. For your information we have implemented some of your recommendations and are actively working toward total compliance.

Since your visit on October 17, 1990, we have closed and labeled all containers containing hazardous materials. We have also designated an area within our enclosed back porch in which to store these materials. It will be signed as such and inspected as required, with inspections documented.

Also, since your visit we have built a 1500 gallon overflow containment tank so that overflow from our rinse tanks will no longer go into a drywell. We are filtering this water and recycling it into the rinse tanks.

Laquer thinner will no longer be used to clean silk screens. We have been advised of a product that will do the same job without water, and have implemented the process.

Per your instructions we have taken the two drums of dried paint to the Mica landfill. The granular thermoplastic material that you were concerned with has been donated to the Washington Dept. of Transportation and they are to pick it up at any time. At this writing the material is still here.

I am personally studying the WAC's and will train our employees in the handling of hazardous materials on site per WAC 173-303-330, and 340.

We have contacted ROAR TECH, INC. concerining the sampling of our drywells and they visited the site and looked at the premesis yesterday. Today a drilling contractor came by, Mr. Gary Bartholomew of Bartholemew Bros. and said he was sent by ROAR Tech. to investigate the site for drilling. I am to get a written proposal for this testing from ROAR TECH and will send it along to you upon receipt.

At this writing we are in compliance with Order DE 90-E727, Parts 1, 2, 3, 4, 6, 7 (Partial), 8, and 9 (Partial). We feel we can be in complete compliance within the alloted time.

Yours very truly and MERRY CHRISTMAS

Robert W. Ramer, Pres.

pacemaker industries, inc.

P.O. Box 11527
Spokane, Washington 99211
Telephone (509) 928-3456
FAX (509) 928-3458

DATE: August 23, 1990

TIME: 0200

FAX TRANSMITTAL COVER

NUMBER OF SHEETS [4] PLUS THIS COVER SHEET

SENT TO FAX PHONE #: 456-6175

TO: Bruce Howard Washington Dept. of Ecology

FROM: Robert W. Ramer

SUBJECT: ABC Laboratories, Inc. test results. Please advise disposal requirements. Per our conversation this date the classification for sludge from the conversion coating line should read F019 instead of F006 as previously reported.

SPECIAL NOTES: Robert W. Ramer, Pres.

MANUFACTURERS AND DISTRIBUTORS OF TRAFFIC SIGNS AND SUPPLIES
MANUFACTURER LICENSE NO. WA 223-01 PA-CE-MI-261DH,
MI 38[illegible]

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

REPORT TO: Pacemaker Industries
E. 7203 Nora
Spokane, WA 99212

LAB NO: 33810-90
DATE: 8-15-90
DATE REC'D: 7-18-90
P.O.#

ATTN: Bob or David

DESCRIPTION: Perform E.P. Toxicity for Heavy Metals on three submitted samples.

TESTS	RESULTS		
	Sludge From Deox Tank	Sludge Chrom & Disposaldes 1&2	Highway Paint
Arsenic, As, mg/L	<0.010	<0.010	<0.010
Barium, Ba, mg/L	<0.25	<0.25	<0.25
Cadmium, Cd, mg/L	0.040	0.042	0.041
Chromium, Cr, mg/L	50.5	287.5	0.233
Lead, Pb, mg/L	13.0	2.14	2.51
Mercury, Hg, mg/L	<0.0010	<0.0010	<0.0010
Selenium, Se, mg/L	<0.005	<0.005	<0.005
Silver, Ag, mg/L	0.028	0.026	0.024

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt
President

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

REPORT TO: Pacemaker Industries
E. 7203 Nora
Spokane, WA 99212

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Lead, Pb, mg/L	13.0	2.14	2.51
Mercury, Hg, mg/L	<0.0010	<0.0010	<0.0010
Selenium, Se, mg/L	<0.005	<0.005	<0.005
Silver, Ag, mg/L	0.028	0.029	0.024

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt
President

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

Report to: Pacemaker Industries
E. 7203 Nora
Spokane, WA 99212

Lab #: 33810-90
Date: 8-15-90
Date Rec'd: 7-18-90
P.O.#:

Attn.: Bob or David

Description: Perform analyses as directed on three submitted samples.

Test	Results
	Chromium, Cr, mg/L
Sludge from Deox Tank	3993.4
Sludge chrom&Disposeides 1&2	17761.8
Highway Paint	16664.3

Respectfully Submitted,
ABC Laboratories, Inc.

W.E. Burkhardt
Manager

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

Report to: Pacemaker Industries
E. 7203 Nora
Spokane, WA 99212

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Date: 8-15-90
Date Rec'd: 7-18-90
P.O.#:

Attn.: Bob or David

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Test	Results
	Chromium, Cr, mg/L
Sludge from Deox Tank	3993.4
Sludge chrom&Disposaides 1&2	17761.8
Highway Paint	16664.3

RECEIVED
AUG 2 1 1990
PACEMAKER INDUSTRIES, INC.

Respectfully Submitted,
ABC Laboratories, Inc.

W.E. Burkhardt
Manager

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES, INC.

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

RECEIVED JUL 16 1990 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL OFFICE

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

TO DEPT. OF ECOLOGY
N. 4601 MONROE, SUITE 100
SPOKANE, WA 99205-1295

Date July 13, 1990 Job No.

Attention JAN BRZOSKA

Re:

Gentlemen:

We are sending you ☐ attached — ☐ under separate cover — via _____ the following items:

☐ Shop Drawings ☐ Submittals ☐ Plans ☐ Specifications ☐ Copy of Letters

☐ _____

No. of Copies	Item Number	DESCRIPTION
		Here are the material Safety Data Sheets
		You requested to see, on the Oakite Products we use.

These are transmitted as checked below:

☐ For Approval ☐ For Your Use ☐ Resubmitted ☐ Please Return _____ Copies

☐ _____

Remarks:

Copy to:

Signed Robert Ramer

Disclosure or reproduction for other than safety and medical purposes prohibited without authorization of OAKITE PRODUCTS, INC.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

RECEIVED JUL 16 1990 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL

MATERIAL SAFETY DATA SHEET

45-016

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: (201) 464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite Dispoz Aid 1
CHEMICAL FAMILY: Inorganic reducing agent	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

FAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

Not Applicable

Not Applicable

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Sodium bisulfite CAS NO. 7631-90-5	>95	5mg/M^3
None of the remaining ingredients used in the product in concentrations greater than 1%, have Threshold Limit Values established by ACGIH or OSHA, or Massachusetts substance list.		
[illegible] data pertaining to [illegible]		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1) bulk density	10.0#/gal
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	Appreciable	pH @ 1%	4.2
APPEARANCE AND ODOR	White powder; pungent odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS	N/A	Lel / Uel

EXTINGUISHING MEDIA: Will not burn or support combustion.

SPECIAL FIRE FIGHTING PROCEDURES: full protective gear and self-contained breathing apparatus for protection against fumes formed from decomposition.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Unknown

(Continued on reverse side)

N/A = Not applicable

11/6/85

Form OSHA-20
Rev. May 72

P-2038 (780)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 5 mg/M^3

EFFECTS OF OVEREXPOSURE

Direct contact may cause burns of eyes and causes skin irritation. Dust or fumes produced by this product may cause irritation of mucous membranes of eyes, nose and throat. Prolonged inhalation may be toxic.

EMERGENCY AND FIRST AID PROCEDURES

Immediately flush eyes or skin with plenty of water for at least 15 minutes; for eyes, get medical attention.

For inhalation, remove from exposure; get medical attention for severe over-exposure.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		N/A
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)* Chlorine-releasing materials; add to acid solutions and solutions of oxidizing agents slowly with agitation and good ventilation.

HAZARDOUS DECOMPOSITION PRODUCTS

When heated to decomposition, emits fumes of sulfur dioxide.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		N/A
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Sweep up dry powder. Collect into suitable container.

For major spills, provide adequate ventilation.

WASTE DISPOSAL METHOD

Observe all federal, state and local regulations for concentrate.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)* If necessary, use dust mask.

VENTILATION		
	LOCAL EXHAUST: Provide adequate ventilation for removal	SPECIAL: of dust and of fumes from
	MECHANICAL *(General)*: product and those liberated during waste	OTHER: solution treatment processes.

PROTECTIVE GLOVES	EYE PROTECTION
Rubber or plastic	Safety goggles

OTHER PROTECTIVE EQUIPMENT: Apron

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in a cool, dry place away from oxidizing agents, acids and chlorine-releasing materials. Keep container tightly closed when not in use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid inhalation of dust and fumes. Add slowly and cautiously to solutions being treated (a slurry is recommended). Provide good agitation and ventilation.

The information herein is given in good faith, but no warranty, expressed or implied is made.

Disclosure or reproduction without [illegible] of OAKITE PRODUCTS, INC. is prohibited

RECEIVED JUL 16 1990 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL OFFICE

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

45-018

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: 201-464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite Dispoz Aid 2
CHEMICAL FAMILY: Alkali	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Calcium hydroxide CAS NO. 1305-6200	>95	5mg/M^3
This data pertains to undiluted product, not dilutions of product.		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1) Bulk density	4 #/gal.
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER @ 32°F. @ 212°F.	Slight Negligible	pH (saturated solution)	12.4
APPEARANCE AND ODOR	White powder; no odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS N/A	Lel	Uel
EXTINGUISHING MEDIA	N/A			
SPECIAL FIRE FIGHTING PROCEDURES	Firemen should wear standard protective clothing.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.			

N/A = Not applicable

4/30/85

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Oakite Dispoz Aid 2

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 5 mg/M^3

EFFECTS OF OVEREXPOSURE

Direct contact may cause burns of eyes and causes skin irritation. Inhalation of dust may cause irritation of mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

Flush eyes or skin with plenty of water for at least 15 minutes: for eyes, get medical attention. Remove contaminated clothing and shoes and wash before re-use. For inhalation, remove from exposure.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID N/A
	UNSTABLE		
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*

Reacts with acidic materials. Add carefully when treating acidic solutions.

HAZARDOUS DECOMPOSITION PRODUCTS N/A

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID N/A
	MAY OCCUR		
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Sweep up dry powder.

Collect in suitable container.

WASTE DISPOSAL METHOD

For concentrate, observe all federal, state, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)* Dust mask when handling dry powder.

VENTILATION		
	LOCAL EXHAUST	SPECIAL
	MECHANICAL *(General)*	OTHER

Provide adequate ventilation for removal of dust or for removal of any mist or vapors generated during the treatme process.

PROTECTIVE GLOVES	EYE PROTECTION
Rubber	Safety goggles

OTHER PROTECTIVE EQUIPMENT

Rubber apron and/or other suitable protective clothing.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Suitable for general indoor storage in a dry area. Keep container closed when not in use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

OTHER PRECAUTIONS

Avoid breathing dust. Do not add large amounts of dry powder to highly acidic so at any one time. Slowly sprinkle over surface of solution while stirring.

GPO 930-540

The information herein is given in good faith, but no warranty, expressed or implied is made.

Disclosure or reproduction, for other than safety and medical purposes, is prohibited without authorization of OAKITE PRODUCTS, INC.

This data pertains to undiluted product, not dilution of product. 45-010

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: (201) 464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite ChromiCoat L-25
CHEMICAL FAMILY: Acid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

NOT APPLICABLE

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES (see attached sheet)		%	TLV (Units)
Chromic acid CAS NO. 13530-68-2 (as Cr 5.6%)	(as CrO3)	10	0.05mg/M^3
Nitric acid CAS NO. 7697-37-2		<3	2 PPM
Hydrofluoric acid CAS NO. 7664-39-3	(as F 1.4%)	<3	3 PPM
Sodium bichromate CAS NO. 10588-01-9		<5	0.05mg/M^3 as C.
Manganese nitrate CAS NO. 10377-66-9		<5	5 ppm as Mn

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	Unknown	SPECIFIC GRAVITY (H_2O=1)	1.142 at 68°F.
VAPOR PRESSURE (mm Hg.)	Unknown	PERCENT, VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	Unknown	EVAPORATION RATE (butyl acetate = 1)	Negligible
SOLUBILITY IN WATER	Complete	pH @ 2.5% by volume	1.6

APPEARANCE AND ODOR: As received, burnt orange liquid; as used, orange solution; no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): None.	FLAMMABLE LIMITS: N/A	Lel	Uel
EXTINGUISHING MEDIA: will not burn or support combustion under normal circumstances			

SPECIAL FIRE FIGHTING PROCEDURES: If necessary, use water. Avoid spattering or splashing this material. Wear full protective clothing including self contained breathing appartus ~~for protection against fumes formed by decomposition.~~

UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong oxidizing material. Contact with organic materials or oxidizable materials may cause violent reactions.

(Continued on reverse side)

N/A = not applicable

11/6/85

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SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Mixture: unknown. See Section II.

EFFECTS OF OVEREXPOSURE

Direct contact causes severe burns of eyes and skin that may or may not be immediately visible. Inhalation of mist may cause irritation of mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

See attached sheet.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		N/A
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)* Combustible, oxidizable or organic materials; chlorine-releasing materials; alkaline materials.

HAZARDOUS DECOMPOSITION PRODUCTS

If heated to decomposition may emit acidic fumes and fumes of oxide of nitrogen.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		N/A
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Spills or leaks should be contained with a non-combustible absorbent such as vermiculite, dry sand or earth. Collect spilled material. Flush area with water and neutralize remaining traces with soda ash. Dispose of all materials by appropriate waste disposal method.

WASTE DISPOSAL METHOD

See attached sheet.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*

None required under normal use conditions.

VENTILATION	LOCAL EXHAUST	SPECIAL
	Provide adequate ventilation for removal of mist.	
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Neoprene, vinyl or acid resistant	Safety goggles.

OTHER PROTECTIVE EQUIPMENT

Neoprene, vinyl or acid resistant apron, sleeves or other suitable protective clothing; face shield. Recommend eye wash and safety shower near use area.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with eyes, skin and clothing. Wash very thoroughly with soap and water after handling. Avoid breathing mist. Store out of direct sunlight at moderate temperatures below 120°F. Before opening, relieve any pressure build-up in drum by loosening closure slowly. Store away from combustible, organic or readily oxidizable materials.

OTHER PRECAUTIONS

Avoid contact or mixing with chlorine-releasing materials. Avoid contact with glass, ceramic or concrete. If contact is made, rinse surface promptly and thoroughly with water. Keep container closed when not in use. (If slight precipitation occurs on prolonged storage, agitate to restore).

GPO 930-540

Form OSHA-20
Rev. May 72

The information herein is given in good faith, but no warranty expressed or implied is made

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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: Industrial Chemical Products/West, Inc.	EMERGENCY TELEPHONE NO.: (213) 961-9581
ADDRESS (Number, Street, City, State, and ZIP Code): 15378 Proctor Avenue, City of Industry, CA 91745	
CHEMICAL NAME AND SYNONYMS: Acid Desmutter	TRADE NAME AND SYNONYMS: Deoxidizer HS
CHEMICAL FAMILY: Acid Liquid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Nitric Acid <	50	
Hydrofloric Acid <	15	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	>	212°F	SPECIFIC GRAVITY (H_2O=1)	1.20
VAPOR PRESSURE (mm Hg.)	>	1	PERCENT, VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR=1)	<	1	EVAPORATION RATE (Buac =1)	< 1
SOLUBILITY IN WATER		Complete		
APPEARANCE AND ODOR		Clear, colorless liquid with acrid odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Mixture unknown
EFFECTS OF OVEREXPOSURE	Can cause burns to skin. Corrosive to eyes.
EMERGENCY AND FIRST AID PROCEDURES	Flush affected area with copious volumes of water. Seek immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*	Strong Alkalis, Oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	Nitrous oxide

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Avoid contact with spill, flush material to treatment drain with water.
~~Rinse spill area with water.~~

WASTE DISPOSAL METHOD: Neutralize with mild alkali to Ph 6-8.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*	Recommended		
VENTILATION	LOCAL EXHAUST	Exhaust Fan	SPECIAL
	MECHANICAL *(General)*	Recommended	OTHER
PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Safety eye goggles
OTHER PROTECTIVE EQUIPMENT	Rubber Apron		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store near oxidizers or cyanide.

OTHER PRECAUTIONS

GPO 834-180

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45019

MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE ENHANCE

27-PC-44

SECTION I

		EMERGENCY TELEPHONE NO.
TRADE NAME (If None, Put Chemical)	Oakite Enhance	(201) 464-6900 (7AM-5PM)
CHEMICAL NAME AND SYNONYMS	NA- MIXTURE	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Incorporated	(800) 424-9300 (CHEMTREC)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road	Berkeley HeightsNJ 07922

SECTION II – HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Sodium xylenesulfonate (CAS #1300 72 7)	10-20	NE	NE	
Diethylene glycol butyl ether (CAS #112 34 5)	<10	NE	NE	
Ethoxylated nonyl phenol (CAS #9016 45 9)	<10	NE	NE	
Polypropylene glycol 2000 (CAS #25322 69 4)	<5	NE	NE	
Naphthalenesulfonate formaldehyde, condensed (No CAS # available)*	<5	NE	NE	
Non-hazardous ingredients**	Bal.			

*Supplier unable to provide complete compositional information

THIS PRODUCT DOES NOT CONTAIN ANY KNOWN CARCINOGEN.

**Unidentified ingredients are not considered hazardous under the Federal Hazard Communication Standard (29 CFR 1910.1200).

SECTION III – PHYSICAL DATA

BOILING POINT (°F)	>212	SPECIFIC GRAVITY (H_2O=1)	1.057
VAPOR PRESSURE (MM Hg.)	<18	PERCENT VOLATILE BY VOLUME (%)	50
VAPOR DENSITY (AIR=1)	NE	pH (concentrate)	4-6
SOLUBILITY IN WATER	Complete	EVAPORATION RATE (BuAc=1)	<1

APPEARANCE AND ODOR: Light yellow liquid; slight odor

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	LEL NA	UEL NA

EXTINGUISHING MEDIA	Use media suitable for surrounding materials.
SPECIAL FIRE FIGHTING PROCEDURES	No special procedures required.
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.

NA - Not Applicable NE - Not Established UN - Unavailable

SECTION V – HEALTH HAZARD INFORMATION

SYMPTOMS/EFFECTS OF OVEREXPOSURE In ation of mist may cause respira y irritation. Possible skin irritation. Eye contact may cause severe irritation.

FIRST AID

EYES Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

SKIN Remove contaminated clothing and wash skin with plenty of water. If irritation persists, seek medical attention. Wash clothing before reuse.

INHALATION Move victim to fresh air. Get medical help if irritation persists.

INGESTION Contact local poison control center or physician IMMEDIATELY!

SECTION VI – REACTIVITY DATA

ABILITY Stable

INCOMPATIBLE MATERIALS None known

HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, Carbon dioxide, Sulfur dioxide, traces of Formaldehyde

SECTION VII – SPILL OR LEAK PROCEDURES

PROCEDURES Wear personal protective equipment (See Section VIII). Clean up with absorbant material.

WASTE DISPOSAL METHOD Dispose of in accordance with Local, State, and Federal regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for dusts and mists.

EYEWEAR Wear chemical safety goggles.

CLOTHING/GLOVES Wear neoprene or other chemical-resistant gloves.

VENTILATION Local exhaust may be necessary under some handling/use conditions. Specific needs should be addressed by supervisory or health/safety personnel.

SECTION IX – SPECIAL PRECAUTIONS

Store in closed container.

APPROVAL [illegible] CIH February 7, 1986

NAME TITLE DATE

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

December 7, 1990

CERTIFIED MAIL (P 854 469 931)

Mr. Robert Ramer
Pacemaker Industries, Inc.
P.O. Box 11527
Spokane, WA 99211

Dear Mr. Ramer:

Enclosed is Order No. DE 90-E727. All correspondence relating to this document should be directed to Bruce Howard. If you have any questions concerning the content of the document, please call Mr. Howard at telephone (509) 456-6107.

Sincerely,

James L. Malm
Section Supervisor
Solid and Hazardous Waste Section

JLM:kah

Enclosures

cc: Marian Kekahuna, Ecology/Olympia (w/enclosures)
Public Information Officer, Ecology/Olympia (w/enclosure)
Fiscal Cashier, Ecology/Lacey (w/enclosure)
General Receivables, Fiscal, Ecology/Olympia (w/enclosure)

COPY

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY PACEMAKER INDUSTRIES, INC. with Chapter 70.105 RCW and the Rules and Regulations of the Department of Ecology	)	ORDER No. DE 90-E727

To: Pacemaker Industries, Inc.
Robert Ramer, President
East 7203 Nora
Spokane, WA 99212

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations," designates those solid wastes which are dangerous or extremely hazardous to the public health and environment; and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely.

An inspection conducted at Pacemaker Industries on October 17, 1990, revealed the following areas of non-compliance:

1. Pacemaker was storing waste in containers that were opened and labelled improperly. In addition, the company has not documented any inspections of container storage area. The storage area for the waste lacks a containment system. These are violations of WAC 173-303-630.

2. Pacemaker has not sufficiently characterized waste streams on site, a violation of WAC 173-303-170.

3. Pacemaker had discharged unpermitted wastewaters to a dry well on site, a violation of WAC 173-303-145 and RCW 90.48.

4. Pacemaker has been evaporating lacquer thinner to the air, in violation of WAC 173-303-145.

5. Pacemaker violated the 90-day accumulation limit and additional requirements of WAC 173-303-200.

6. Pacemaker has not met the personnel training requirements of WAC 173-303-330.

7. Pacemaker has not met the requirements for preparedness and prevention of WAC 173-303-340.

8. Pacemaker has not met the contingency plan and emergency planning requirements of WAC 173-303-350 and -360.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the Department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with the provisions of RCW 70.105.095.

IT IS ORDERED THAT Pacemaker Industries, Inc., shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

1. Pacemaker shall, immediately, label all containers of waste in accordance with WAC 173-303-630; all containers shall be kept closed except when waste is being added.

2. Pacemaker shall, within 30 days of receipt of this Order, designate a waste container storage area that meets the requirements of WAC 173-303-630.

3. Pacemaker shall, within thirty (30) days of receipt of this Order, designate each wastewater waste stream to determine if the wastewaters are dangerous wastes.

4. Pacemakers shall immediately cease discharge of any unpermitted wastewaters to any dry well or drain field.

5. Pacemaker shall, within forty-five (45) days of receipt of this Order, submit a plan to this office for sampling of soils and/or sludges in the dry well to determine if contamination exists. Pacemaker shall carry out such sampling within fifteen (15) days of approval of such a plan. If it is determined contamination does exist on-site, Pacemaker will be required to submit a clean-up plan.

6. Pacemaker shall, immediately cease evaporation of any lacquer thinners or other solvents.

7. Pacemaker shall, within thirty (30) days of receipt of this Order, ship off-site to an approved treatment, storage, and disposal facility, any waste that has been in storage longer than ninety days. Pacemaker shall send copies of all manifests to this office within fifteen (15) days of the date waste is shipped off-site.

8. Pacemaker shall, within fifteen (15) days of receipt of this Order, begin regular inspections of its container storage area in accordance with WAC 173-303-630. These inspections should be documented on an inspection log. Pacemaker shall submit a copy of its inspection log to this office within thirty (30) days of receipt of this Order.

9. Pacemaker shall, within sixty (60) days of receipt of this Order, take actions to come into compliance with the following: the personnel training requirements of WAC 173-303-330; the preparedness and prevention requirements of WAC 173-303-340; and the contingency and emergency planning requirements of WAC 173-303-350 and -360.

Any person who fails to take corrective action as specified in a compliance ORDER shall be liable to a civil penalty of not more than ten thousand dollars for each day of continued noncompliance. In addition, the department may suspend or revoke any permits and/or certificates issued under the provisions of this chapter to a person who fails to comply with an ORDER directed against him.

Any person feeling aggrieved by this ORDER may obtain review thereof by application, within thirty (30) days of receipt of this ORDER to the Pollution Control Hearings Board, Mail Stop PY-21, Olympia, WA 98504-8921. Concurrently, a copy of the application must be sent to the Department of Ecology, Mail Stop PV-11, Olympia, WA 98504-8711 and to the Department of Ecology, N. 4601 Monroe, Suite 100, Spokane, WA 99205-1295. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

DATED at Spokane, Washington this 7th day of December.

James L. Malm
Section Supervisor
Solid and Hazardous Waste Section
Eastern Regional Office
Department of Ecology
State of Washington

RECOMMENDATION FOR ENFORCEMENT ACTION

CONFIDENTIAL

PROGRAM: Hazardous Waste DATE: November 20, 1990

Full Name of Investigator: Bruce F. Howard (509) 456-2926
Public Telephone Number

RECOMMEND ENFORCEMENT ACTION BE TAKEN AGAINST:

I. Pacemaker Industries, Inc.
Robert Ramer, President

Additional Potentially Liable Parties (PLPS) Yes _____ No _____

East 7203 Nora Spokane WA. 99212

II. TYPE OF ACTION: Penalty ___ NOV ___ ORDER _X_ Amendment ___ Other ___

III. FOR:

A. Chapter 18.104 RCW, violation of Water Well Construction Act.
[ ] Specific paragraph RCW/WAC:
[ ] Failure to submit a well report for a well drilled for

_____
Name of Well Owner

_____ _____
Address Permit No.

B. Chapter 70.94 RCW, Violation of Clean Air Act.
[ ] Specific paragraph RCW/WAC:

C. Chapter 86.16, violation of Flood Control Laws.
[ ] Specific paragraph RCW/WAC:

D. (Reference RCW 43.27A), violation of Water Resource Laws, 90 RCW.
[ ] Specific paragraph RCW/WAC:

E. Chapter 90.48 RCW, Water Quality violations/notices:
[ ] 90.48.080, unlawful discharge of wastes into public waters
[ ] 90.48.120, Water Quality Regulatory Notice and ORDER
[ ] 90.48.120(2), modification of Water Quality criteria
[ ] 90.48.180, noncompliance with waste discharge permit
(Please include copy of Page 1 and the page of the permit containing the condition violated.)
[ ] 90.48.350, intentional or negligent discharge of oil into state waters

[ ] 90.48.450, agricultural discharges
Has consideration been given to change of land use? _____

F. Chapter 70.105 violation of Hazardous Waste Laws.
X] Specific paragraph RCW/WAC: 173-303-145, -170, -200, -330, -340, -360, -630.

G. [ ] Other: _____

IV. PERMIT #'s

NPDES	Haz Waste ID	Haz Waste Cleanup	Ground/Surface Water Permit

V. The violation occurred at:

Time Date

VI. Location of incident/activity: Spokane (City or S, T, R,) Spokane (County)

Name of watercourse involved: Class:

Point Source Yes ___ No ___ WBS #:

VII. Narrative of incident/situation: (See attached memo)

VIII. Physical evidence obtained: Samples _____ Pictures __X__ Other _____

IX. Names and addresses of witnesses: _____

X. Recommended penalty OR regulation action to be taken:

ESCALATED PENALTY: Yes _____ No _____

Enclosures:
Lab Report No. _____ Investigated by: _____

Pictures: _____ Title: _____

ENDORSEMENT

We have taken the following actions to resolve this problem: See above.

Bruce F. Howard
Unit Supervisor
Hazardous Waste Unit

James L. Malm
Section Supervisor
Solid and Hazardous Waste Section

Recommend enforcement action will be taken as proposed.

Claude W. Sappington
Regional Director

12-4-90
Date

CHRISTINE O. GREGOIRE
Director

FILE

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

N. 4601 Monroe, Suite 100 • Spokane, Washington 99205-1295 • (509) 456-2926

TO: Jim Malm

FROM: Bruce Howard BH

DATE: November 9, 1990

Re: Recommendation for Enforcement Action

On October 17, Ecology conducted an inspection of Pacemaker Industries. The Department had been on site in 1988 in response to a complaint; similar allegations were brought up in the summer of 1990. The complaints alleged, in the main, that drums of waste had been buried on property adjacent to Pacemaker's. An investigation ensued; results indicated no physical evidence supporting the allegations.

At the same time, as Ecology was on-site, drums of waste were observed open and unlabelled. I decided that a complete inspection was warranted. The inspection was conducted at the completion of the complaint investigation, and revealed multiple areas of non-compliance. These included:

1. Pacemaker was storing waste in containers that were opened and labelled improperly. In addition, the company has not documented any inspections of container storage area. The storage area for the waste lacks a containment system. These are violations of WAC 173-303-630.

2. Pacemaker has not sufficiently characterized waste streams on site, a violation of WAC 173-303-170.

3. Pacemaker had discharged unpermitted wastewaters to a dry well on site, a violation of WAC 173-303-145 and RCW 90.48.

4. Pacemaker has been evaporating lacquer thinner to the air, in violation of WAC 173-303-145.

5. Pacemaker violated the 90-day accumulation limit and additional requirements of WAC 173-303-200.

6. Pacemaker has not met the personnel training requirements of WAC 173-303-330.

7. Pacemaker has not met the requirements for preparedness and prevention of WAC 173-303-340.

8. Pacemaker has not met the contingency plan and emergency planning requirements of WAC 173-303-350 and -360.

I recommend that an Administrative Order be issued to Pacemaker, requiring the company to address the above violations and to investigate possible on-site contamination from discharges to the dry well.

At this time, I don't believe a penalty is in order, for the following reasons. Pacemaker has demonstrated a desire to gain better understanding of the regulations and a willingness to cooperate with Ecology at each phase of our recent investigations. The company is under financial strain, and a penalty might delay their ability to respond to our concerns. The company has also suffered, it appears, from negative publicity recent allegations generated. Finally, by issuing an Order at this time, Pacemaker is given a chance to reach full compliance. If they choose not to comply, we are in an excellent position to pursue a penalty.

I have informed both Water Quality and Waste Reduction, Recycling and Litter Control sections, by memo, of Pacemaker's desire for information and assistance from them. I also went over the above-listed violations verbally at the conclusion of my recent inspection.

CHRISTINE O. GREGOIRE
Director

COPY

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

N. 4601 Monroe, Suite 100 • Spokane, Washington 99205-1295 • (509) 456-2926

TO: Jim Malm

FROM: Bruce Howard BH

DATE: November 9, 1990

Re: Recommendation for Enforcement Action

On October 17, Ecology conducted an inspection of Pacemaker Industries. The Department had been on site in 1988 in response to a complaint; similar allegations were brought up in the summer of 1990. The complaints alleged, in the main, that drums of waste had been buried on property adjacent to Pacemaker's. An investigation ensued; results indicated no physical evidence supporting the allegations.

At the same time, as Ecology was on-site, drums of waste were observed open and unlabelled. I decided that a complete inspection was warranted. The inspection was conducted at the completion of the complaint investigation, and revealed multiple areas of non-compliance. These included:

1. Pacemaker was storing waste in containers that were opened and labelled improperly. In addition, the company has not documented any inspections of container storage area. The storage area for the waste lacks a containment system. These are violations of WAC 173-303-630.

2. Pacemaker has not sufficiently characterized waste streams on site, a violation of WAC 173-303-170.

3. Pacemaker had discharged unpermitted wastewaters to a dry well on site, a violation of WAC 173-303-145 and RCW 90.48.

4. Pacemaker has been evaporating lacquer thinner to the air, in violation of WAC 173-303-145.

5. Pacemaker violated the 90-day accumulation limit and additional requirements of WAC 173-303-200.

6. Pacemaker has not met the personnel training requirements of WAC 173-303-330.

7. Pacemaker has not met the requirements for preparedness and prevention of WAC 173-303-340.

8. Pacemaker has not met the contingency plan and emergency planning requirements of WAC 173-303-350 and -360.

I recommend that an Administrative Order be issued to Pacemaker, requiring the company to address the above violations and to investigate possible on-site contamination from discharges to the dry well.

At this time, I don't believe a penalty is in order, for the following reasons. Pacemaker has demonstrated a desire to gain better understanding of the regulations and a willingness to cooperate with Ecology at each phase of our recent investigations. The company is under financial strain, and a penalty might delay their ability to respond to our concerns. The company has also suffered, it appears, from negative publicity recent allegations generated. Finally, by issuing an Order at this time, Pacemaker is given a chance to reach full compliance. If they choose not to comply, we are in an excellent position to pursue a penalty.

I have informed both Water Quality and Waste Reduction, Recycling and Litter Control sections, by memo, of Pacemaker's desire for information and assistance from them. I also went over the above-listed violations verbally at the conclusion of my recent inspection.

CONFIDENTIAL

10/17/96 PACEMAKER / BW

8:00 Meet Dick Shabro on-site
8:05 Notify Bob Ramer of our work.
8:24 Begin excavation according to geophys. report - on anomoly #4

10:08 Continued excavation. No material has been found to explain GPR anomoly. Olympus is positive ground was completely undisturbed since date of geophysical work (paint marks still on ground; vegetative cover uniform over entire area -)

10:20 Moved to anomoly #8 to excavate. Left 1st hole open for possible further excavation.

Nothing except surface metals found. Dug to ~5 feet.

10:35 Moved to area #6 - area was disturbed under surface - found various small metal objects

11:10 Moved back to anomaly #4 - extending excavation E & W. No evidence of any metallic objects that would cause anomaly.

At site #6, excavated area app. 10' X 4', to a depth of ~3'+. Ron, backhoe operator felt that was entire area that had originally been dug. Material appeared to be solid waste, i.e. floor sweepings, of metal pieces, short chain, old aerosol can, etc. (See photo). Original, undisturbed soil lies below & beyond that excavation.

12:00 Brief interview w/ Rodney Shaw. Olympus went to lunch. I stayed on-site.

13:00 Olympus returned to begin backfilling. I see no reason to continue excavation.

1525 FINISHED backfill, left site

15:35 Arrived at Pacemaker dwl.

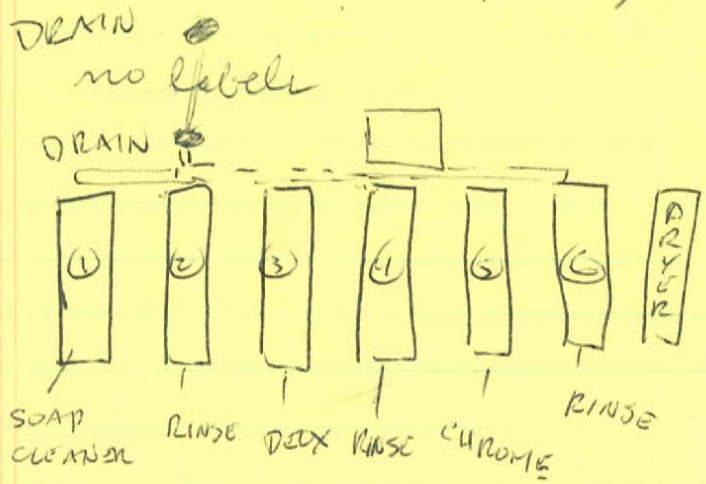
Hans Jurgensen - OSKITE - Seattle
Rep. - 1-800-(221) 9467

ARRIVED 2:35 - INTRODUCED SELF TO DEANNA DUNN.

Bob Remer unavailable.
Asked for someone else to escort me through site.

DAVE SISK

12 drums (11 chrome sludge
1 soap sludge)



Lowell
Purcell

Plan to build
containment (1400 gal)
tank to recycle

Drain field - ~1975

layout ?

(6) 2-3 times/year
~1500 gal tank

(5) once ~4-5 years

(4) once 4-6 weeks
drain to drain

(3) DE-OX - replenish (transfer once / 3 yrs.
residue
to dump)

(2) w/ (4) - together to
drain field

(1) SOAP - replenish
(transfer ~ once 18 months
→ sludge soap residue)

FLOOR DRAIN -

H_2O SOLUBLE - FILM
USED ON SILK SCREENING

~~[illegible]~~ - used to clean
~~[illegible]~~ with
~~THINNER~~
Petroleum
Naptha

SAT DOWN - DISCUSSED
① DRUMS - LABELLED ACCORDING
TO DW REG->
SHIPPED OFF-SITE ASAP
② DESIGNATE ANY DRUMS
OF UNKNOWN
③ NEED STATE DISCHARGE
PERMIT BY DISCHARGE ANY THING
(BH WILL TALK WQ)
? W/ WRRLC

(4) after correcting above, determine generator status (Dave — says may be generate 4 drum/year)

(5) need to investigate other means of drying sludge; can't have open drums sitting about

(6) Need to send all sample results done to date

(7) keep ink sludge/solvent even better contained

(8) I will followup in written form

can not air
dry paint thinner/
solvents

left site at
4:10 pm.

7/23

DR. GERALD SANANES (509) 375-3808
BATTELLE NW

option for locating drums:

① FISHER TW SERIES
metal detector to 6', OK

② MAGNATOMETER - 8' or more
(interference?)

③ GROUND-PENETRATING RADAR
to 20'-30'
(covers ground at 5'/sec)

COSTS: ② or ③
$2500 - $5000, depending
on data review needed

(b) (6), (b) (7)(C)

late Spring – early summer

✓ when dug water line, he went out – pipe area had strong odor

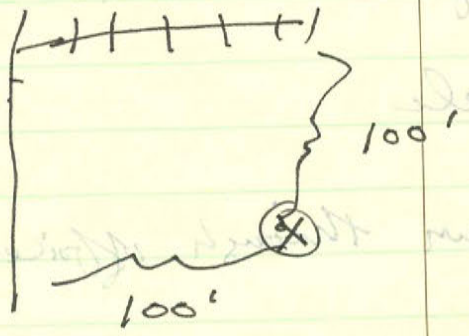
west side of tack shop (on ground)

would be willing to come out on site to help locate

saw disturbed surface area

~8' X 8' on surface

asked again, where? 100' N & 100' E of SW corner



Ron Waller 9:45 pm
7/25

can't say anything
no comment at all

Roger Smith 9:46
7/25

"you guys are
dumber than a box of rocks"
was anything buried
"I suspect it could have been"

"helped Jim Dagoo & Garrelly
load in front of backhoe
& what he did w/ it I
don't know"

7/26 8:41

Mr. Ramer called —
said his attorney has advised
all employees to make no
comment re: drum allegations.

Said he is considering legal
action against (b) (6), (b) (7) (C).

(b) (6), (b) (7)(C)

[redacted]

7/26 8:24

"clean-up day"

(b) (6), (b) (7)(C)

[redacted]

(b) (6), (b) (7)(C)

[redacted]

4:54 7/26

(b) (6), (b) (7)(C)

[redacted]

12:15 | 7/13

(b) (6), (b) (7)(C)

[redacted]

OLD PAINT BARRELS -
leaking on ground

(b) (6), (b) (7)(C)

[redacted]

chemicals pumped from
conversion coating tank
onto ground (~50 S. OF
EDGE OF NEW ADDITION - STRAIGHT
INTO FIELD)

Septic drainfield from mechanic's
shop put in w/o permit

burned old/discolored paint in stove on site

burned used oil in stove as well

(b) (6), (b) (7)(C)

[redacted]

To: John, Cl de, Jeff, etc.

CONFIDENTIAL

From: Bruce

Re: Pacemaker Industries allegations

Date: 7/26

Here are some brief notes to bring us up to date.

I finally talked to all (b) (6), (b) (7)(C) people whose names had been given to Claude by (b) (6), (b) (7)(C) Here are summaries of what they told me.

(b) (6), (b) (7)(C)

From Mark Fuch's call to Batelle, we contacted Dr. Gerald Sandness, (509) 375-3808. He suggested several options:

1. Using a Fisher TW series metal detector, which he said works well to about 6 feet (he mentioned that metal detectors are poor in locating thin objects such as pipes, and need to be tested on large surface area items).

2. Using a magnatometer, which would read to 8 feet or more. There might be interference problems from the fence and railroad. However, he indicated it would successfully located a pile of drums very clearly. If nothing like that showed up, they'd have to do data analysis (more $). Cost range: $2500 - $5000.

3. Using ground-penetrating radar. He said this would provide a clear indication of subsurface objects to a depth of 20 to 30 feet. The cost would be similar to the magnatometer.

If we choose to bring Batelle on site, they won't be able to come until mid-August. They said they have used this equipment with a great deal of success at Hanford.

There we have it. It feels like about the same boat we were in last week. Our best options seem to be to recall Olympus for further excavation (which we would have a planned limit for, at which time we would declare that part of the investigation over), or to bring Batelle on site with more sophisiticated equipment, or both. We are looking, I think, in spending at least another 4 to 5 $K regardless. I would also like to take an additional soil sample along the side of the mechanics shop (Mr. Ramer said that would be fine). We can run that through our own lab on DW budget.

605985 Pacemaker Duplicates / Photos

FILE LETTER

LIMIT ONE ROLL PER ENVELOPE

DATE 7-13
TIME IN
TIME DUE
CLERK 11374
TWIN CHECK

NAME Ecology, Dept. of Jan PHONE

ADDRESS

CITY & STATE ZIP

FILM TYPE
- [ ] BLACK & WHITE
- [x] KODACOLOR
- [ ] KODACHROME
- [ ] EKTACHROME
- [ ] EKTAR
- [ ] COLOR PRINT FROM SLIDE
- [ ] OTHER

EXPOSURES
- [x] 12
- [ ] 15
- [ ] 20
- [ ] 24
- [ ] 36

SIZE
- [ ] DISC
- [ ] 110
- [ ] 126
- [x] 135
- [ ] ____

ASA
- [ ] 25
- [ ] 100
- [ ] 200
- [x] 400
- [ ] 1000
- [ ] 1600
- [ ] ____

REPRINTS/ENLARGEMENTS

NO. OF NEG STRIPS OR SLIDES

- [ ] REPRINTS
- [ ] 5 x 7
- [ ] 8 x 10
- [ ] 8 x 12
- [ ] 11 x 14
- [ ] OTHER ____

PRINTS [ ] 1 Each [x] 2 Each [ ] OTHER ____

SPECIAL INSTRUCTIONS

1 hour

NO. OF PRINTS MADE

14

PRICE

$ 5.23
$
$
$
TOTAL

Tidyman's

TIDYMAN'S PHOTO CENTER
N. 6401 Cedar
Spokane, WA 99208
328-5075

90 7 16

7 16

90 7 16

90 7 16

90 7 16

90 7 16

90 7 12

90 7 12

90 7 12

90 7 12

Jackson Seed Co
90 7 12

90 7 12

NOTICE

90 7 12

Jacklin Se
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Jacklin See
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Jacklin Sea
90 7 12

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90 7 12

90 7 12

Memo from Spill

cc: (b) (6), (b) (7)(C) [redacted]

Sectum Haus

Spokane Diesel
35 gal NaOH

(b) (6), (b) (7)(C) [redacted]

Filmed area last night
11:00

BN right of way where drums are

(b) (6), (b) (7)(C) [redacted]

adjacent to Pacemaker
Company backhoe
10-15 55 gal drums
1 year ago

25 barrels now there -
unsecured

dried paint residue
in some drums -
some on ground

sealing tar in drums tipped
over.

- Metal detector for drums -

(b) (6), (b) (7)(C) [redacted] - pleaded innocent
4 years - working w/ company
Regan working there

8 ft deep trench
8'-10' wide
15' long
18' deep walter

Illegal disposal

(b) (6), (b) (7)(C)

Anonymous complainant
in 9/9/88

Ron Holcomb - spokesman-
Review

Water quality permit?
Burlington Northern -
Jim lead on D.W.
PIO office - Johnna
Contractor - digging
sampling
Contact 46's Jay Manning
Jeff Meyers

BN security people
24hr. security
"runt a cop"

(b) (6), (b) (7)(C)

2:30 p.m. [redacted]

rent metal detector

-Ken Purdy - Enforcement

7-12-90 Ramer, President

2:05 p.m. Bruce Howard, Jeff Dill + Jan Brzoska

current waste management practices -
sent batch to Arlington, Oregon
4/13/89

[Form 2 filled out
Form 4, 1988
made copy

Haven't sent off any since
- once every 5 years

Out of paint business

sold striping truck
Fall of 1989

sold to Truckline

Flushed out line with thinner + mixed back in with paint.

Currently drying sludge - not out of chrome tanks
Paint inventory that they are trying to sell on site
Employees warned not to pour thinner on ground.
Sends waste oil up to facility on northside. May dump solvent in with used oil.

currently 3 barrels of used oil.

Spokane Transfer wanted used oil, but hasn't picked up. To burn in used oil burner.

(b) (6), (b) (7)(C)

Rinse tanks (rinse water goes into dry well).

Does have state waste discharge permit

Filled out '89 annual Report form - made copy

Did not bury drum at facility.

(b) (6), (b) (7)(C)

2:30 p.m. [redacted]

(b) (6), (b) (7)(C)

5 gal / time of
chrome waste

6 55 gal drums of
waste water w/ a little
chrome.

rinse water, neutralized
+ discharged to dry well

2:30 outside facility
1 drum lube sealant
4 evaporator drums
Not sure of 1.

---

* .55 gal drum
* 1 lacquer thinner

(b) (6), (b) (7)(C) [redacted] furnace oil

(b) (6), (b) (7)(C) [redacted]

3 drums used oil

(b) (6), (b) (7)(C) [redacted]

little waste from solvent
- 1 drum 4 years ago
½ drum left

yellow + white stripping paint
11 white
7 yellow

hole in 1 from factory
8 ~~product~~ drums

send waste exchang
thinner mixed in with
paint & sold
& product barrels

dried paint in empty
barrels
Lead & chrome in paint
must take samples

---

no drums ever buried
~~out~~ in field

lease from RR

drywell inside bldg

~~& chrome sludge~~
yellow in drum & drums - soap
well test for chrome

4th drum - soap
unknown

Lab
list

9:00 a.m. 7/13/90
Mtg. John, Bruce, Jan,
Claude, Jeff

→ soil sampling behind
building (MEK) & where drums
buried
→ contact Olympus
→ water resources or
Washington Water Power
for metal detector

If something found, -
more investigations will be
necessary
* → County assessor's office
Plat get copy of map

*security for Sat. & Sun.
Special Agent
on-site TUS to begin
work

schedule ~~of~~ disposal
dried paint sludge on
ground contaminated
should be picked up
secure product

Russell - Spokesman-Review

MEMO

RECYCLE, Once Is Not Enough!

FROM:

Litter Control and Recycling Program
WASHINGTON DEPARTMENT OF ECOLOGY

(Colors)

(b) (6), (b) (7)(C) [redacted]

Pacemaker

2:20 p.m. 7-13-90

(b) (6), (b) (7)(C) [redacted]

Tank for cleaning chemicals behind screen room

all chemicals were washed out into ground when tank draining. Hose directly out from tanks

small grassy area

Take screens + clean with MEK 2 gal - 4 gal. used rags to clean

Printed on 100% Recycled Paper, of course

wash screens w/water

5 gal can MEK dumped when dirty
left hand side of build.

1 x ea. day
or on/near road

15 years

---

rags went into dumpster

Gober pumped septic tank - chemical

---

trench - put in pipe

2 x's dug up 'cuz of chemicals eating it

7/16/90 INN AT THE PARK
8:00 Tues. A.M.
→ Bruce Sheppard - BN
→ Wally - will look at site
Olympus
Develop scope of work &
stradegy - cost recovery
- need for pic code

Approvals afterward needed w/
BN for digging
May dig Wed. or Thurs
with rent backhoe here
* 10:00 mtg. in office

Lawyer cancelled mtg w/
(b) (6), (b) (7)(C)

Will have to get AG from
Ecology
Jeff Meyers
→ Metal detector from Olympus

Grain elevator structure -
around back
Park 22 years

Thinner - do not evap solvents
seal & label
label drums
sample & test
move drum out of way
organize product
on other side

Zi 45 p.m. Pacemakers
paint apply-A-Line
sold auction &
this wk or next

Sold Opportunity Stripping
parking lot pay pick up them

soup waste + drums
from inside
& opp. shipping

Cleaned up black tar
traffic loops
not waste

2 barrels ~~paint~~ solid paint
waste

~~tested + sent~~
to solid land
fill

*Traffic barrels
2 drums empty

Thinner sold

salesman
illegal credit card
use

Got rid of MEK 1 year
ago
channel 6 - Joe
Burke
former employee

demonstrate

9:30 a.m. - 11:00 a.m.

7/12 Meeting re: Pacemaker Industries
w/ Claude, Jim, Bruce, Jeff & John
wage & hourly investigation at
Pacemaker. Employees interviewed by
Steve Rudd.

(Randy Shaw of channel 6 news
contacted Claude.) - called Claude a 10:00 Tues. me 7/12
(b) (6), (b) (7)(C) [redacted] was employ who
said he disposed of drums of H.W.
- Shaw filmed Jeff & Claude & it will air
at 11:00 p.m. on news 7/12
- drums located on Burlington Northern
right-of-way, adjacent to Pacemakers.
- 10-15 drums aledged to be buried
- 25 drums now there & secure
dried paint residue in some
some paint on ground
- sealing tar in one drum leaking
out
- (b) (6), (b) (7)(C) [redacted] - current employee pleaded
innocent.

- working with company (b) (6), (b) [redacted] years
(b) (6), (b) (7)(C) [redacted] dug 8' deep trench
8'-10' wide, 15' long & 18' deep
- Illegal disposal

(b) (6), (b) (7)(C)

[redacted] has gone to Spokesman — Review. Ron Holcom talked w/ him

- needed water quality permit to discharge waste water from plating tanks

Jim will lead on d.w.
Check w/ Jonna of PIO office

- contractor needed for digging & sampling
- contact AGS Jeff Meiers or Jay Manning
- need BN security people for 24hr checked of property until excavation begins

- Randy Shaw will call back at 2:00pm
- Check with Ken Purdy, enforcement

7-12-90 Complaint Investigation of Pacemaker Industries w/ Jeff & Bruce

2:05 p.m. arrived at site & met with Mr. Ramer, President.
4/13/19 sent waste to Arlington
filled out Form 2 & 1988 & 1989 Form 4
they have not sent off any waste since.

They have recently got out of paint business & have sold shipping truck. Fall of 1989. Sold to a truck line.
When they would flush out line with thinner, they would mix it back with the paint.
Currently they are drying sludge from plating operation.
They have some paint inventory they are trying to sell
Employees have been warned not to pour thinner on ground.
Currently have 3 drums of waste oil. Mechanic may dump waste oil in with

used oil, but very small amt.
- thinks facility takes oil on Northside of Spokane. Spokane Transfer wanted to use oil, but has not picked it up (they will burn it)

(b) (6), (b) (7)(C)

*send waste haulers list

Rinse water from rinse tanks goes into dry well & does not have state waste discharge permit
- Made copy of manifest, form 2 & form 4's

Ramer stated he did not bury drums at his facility.

2:30 p.m. met with shop foreman Dave Gist & toured plating operation.
- 5 gal / time of chrome waste
- 6 55 gal. drums of wastewater with a little chrome in shop.
- rinse water neutralized & discharged to dry well.

took several photos of plating line

Joined by (b) (6), (b) (7)(C) [redacted]

2:50 p.m. - inspected outside facility

photo 4 evaporator drums next to fence & 1 drum sealant

photo 1-55 gal. drum laquer thinner (product)
1-- drum of leftover furnace oil

(b) (6), (b) (7)(C) [redacted] worked for Pacemaker for (b) (6), (b) (7)(C) [redacted] yrs.

photo 3 drums used oil outside maintenance shop

(b) (6), (b) (7)(C) [redacted]. They use very little solvent, purchased 1 drum 4 yrs. ago & have 1/2 drum left. They do add their waste solvent (very sm. amt.) to used oil.

Outside fence: 11-55 gal. drums of white paint
4-55 gal. drums yellow paint

1 drum yellow paint leaking & had been turned over.

*Send waste exchange catalog

photo 8 product barrels - thinner mixed in with paint & sold

photo and paint in empty barrels
- may be lead & chrome in paint
- they must sample

Ramu stated again that no drums were buried in field — they lease field from BN.

- dry well inside building

photo 1 ~~55~~ gal. drums of soap
will test for chrome
(yellow in drum is from paint)
* send can list

Rented metal detector, but did not use.
from A-Z

7-12-90 3:45-4:50 Meeting w: Pacemaker Industries w/Claude, John, Bruce, Jim & Jeff. + must contact BN security for night time surveillance of property where drums are stored. Review of investigation

7-12-90 4:55 P.M.
I contacted B.N. Special Agent Gary Coleman, 446-5460 to look over site.

7-12-90 8:30 AM. Coleman stated everything look OK at Pacemakers & he would continue to check property. Said to check w/ assessors office to make sure property belonged to B.N.

Spokesman-Review
July 14, 1990

Toxic-waste experts to dig for barrels next week

Owner of sign company says he's unaware of any hazard

By Russell Carollo
Staff writer

Toxic waste cleanup experts are expected to start digging next week near a Spokane Valley sign-making plant accused of burying barrels that could be leaking hazardous chemicals.

"We'll sit down and develop some strategy: how they're going to dig, where they're going to dig," Claude Sappington of the state Department of Ecology said Friday.

The business, Pacemaker Industries, has been under investigation by DOE since earlier this week, when a former Pacemaker foreman took Sappington to the company's property at E7203 Nora, DOE officials said.

The former employee, James Dragoo Jr. of Spokane, showed the DOE official about 25 barrels — some leaking — scattered above ground on the company's property, Sappington said. Dragoo also showed the him the spot where Dragoo says he buried as many as 15 other drums, possibly containing toxic chemicals, two years ago, Sappington said.

Pacemaker owner Robert Ramer has denied knowing anything about barrels being buried near his plant, and he also disputed the claim that the above-ground barrels inspected by DOE are hazardous.

On Thursday, several DOE officials inspected drums scattered above ground, Sappington said, but they have not determined if they contain dangerous chemicals.

Sappington said DOE likely will ask Olympus Environmental, a Northwest hazardous waste cleanup company under contract with DOE, to clean up the area around the plant.

The above-ground barrels inspected by DOE are scattered in tall weeds on the company's property. The spot where other barrels allegedly are buried is on an adjacent piece of land owned by Burlington Northern Railroad, DOE officials said.

Both locations are a couple of blocks from Trent Avenue and a few hundred yards from Seth Woodard Elementary School.

Pacemaker Industries has made road signs for city, county, state and federal roads and for hospitals and industrial plants across the country.

The investigation by DOE is not the first time the company has come under scrutiny by officials.

Currently, Northwest Fair Contracting Association, an organization of area contractors and unions, is investigating allegations of federal wage regulation violations by Pacemaker, association official Steve Rudd said. He added that the association prompted the current DOE investigation, and it encouraged the former Pacemaker foreman to assist the state environmental agency.

In September 1988, DOE looked into an anonymous complaint similar to the one the state agency currently is investigating. The earlier complaint, a DOE document says, alleged the company was "cleaning out paint equip-

Please see WASTE: A7

CONTINUED: FROM A6

Waste

ment in back of (the) facility and burying drums of solvent in back and in (a) field next to their building."

Jan Brzoska of DOE, who investigated the 1988 complaint, said there was no other evidence at the time indicating the company had buried drums, so no one dug up the area. Near a building, DOE did find three drums filled with toxic chemicals used to produce chrome, she said, and the company agreed to move those.

Ramer acknowledged that his company leases the Burlington Northern land where cleanup crews plan to dig next week.

7/13/90 9:00 a.m. Mtg. - John, Bruce, Claude, Jeff & Jan

→ must sample soil behind bldg. for MEK & where drums were buried

→ contact Olympus - Jeff

→ check with Water Resources or Washington Water Power for metal detector - Jeff

- If something found, more investigations will be necessary

→ check at County Assessor's office for owner & get copy of map - Jan

→ need security for Sat. & Sun. from B.N. Special Agent - Jan

Olympus should be on-site Tues to begin work

→ ground contaminated w/ paint sludge should be picked up & product secured - Bruce will call Ramer

7/13/90 10:00 a.m.

1) Took photos to Tidyman's for finishing
2) Returned metal detector

3) confirmed property where drums
alledgedly buried is owned by B.N.
at Assessor's Office. Got map of
area
12:30 coleman said he'd continue surveillance
7-13-90 2:00 p.m. Claude's Office
Interview with Russell Carollo
of Spokesman-Review re: complaint
of 9/88

7-13-90 2:20 p.m. [redacted] interviewed [redacted]
on phone re: H.W. disposal practices
[redacted] worked there.

Former Employee - [redacted] yrs ago - [redacted]
[redacted]. There was tank
for cleaning chemicals behind screen room.
All chemicals washed out onto ground
when tank drained. Hosed directly out
from tank
They would take screens & clean in
small grassy area with MEK & wash
with water. 1st they would clean screens
w/ rag dipped in MEK (2-4 gals.)
When MEK got too contaminated (dirty), they
would dump 5 gal container outside

on left side of building. ~1 5gal. can/day. They would also dump on or near road. This went on for 15 years. Rags went to dumpster.

Gober pumped septic tank out which contained chemical.

They had to dig up pipe 2-3 x's & replace. Chemicals ate it.

7-16-90 1:40 p.m. Mtg. w/ Claude, Jeff & Bruce

Jeff will meet with Bruce Sheppard of BN & Wally of Olympus tomorrow at 8:00a.m. at Inn At THE PARK & go to site (TUES. 7-17-90)

- Approvals will be needed from BN before digging begins — may dig Wed. or Thurs. They will rent backhoe here in Spokane.

- Must develop scope of work & stategy for cost recovery
  - need Pic code - Claude

- (b) (6), (b) (7)(C) [redacted] lawyer cancelled meeting w/ us

- Ecology will have to get AG
  - Jeff Meyers ?
    Bruce will check

- Metal detector from Olympus ?

*- I will go to Pacemaker this p.m.

& check on status of drums in field

- drums labeled
- drums to be sampled & tested
- move all drums into yard & out of way
- organize product drums
- all drums sealed
  - no evaporation of solvents

7-16-90 2:45 p.m. Photos taken
Arrived at Pacemaker & met with Tamer.

All product drums of paint have been sold to "Apply-A-Line" - a company in Auburn. They will pick up this week or next.

The parking lot paint was sold to "Opportunity Striping". They will pick up Thurs.

Soapwaste & drums of chrome contaminated water from inside bldg. have been stored together outside with other chrome contam. drums. A plastic sheet has been placed over them & they have been written on, - H.W.

Black tar has been cleaned up
- trash loops
- not waste

- they have 2 drums solid paint waste they have collected & will have yesterday sent to solid waste

All areas in field had been cleaned up & all drums of product & waste removed from field
landfill.

All traffic barrels were left in place along with 2 other empty drums

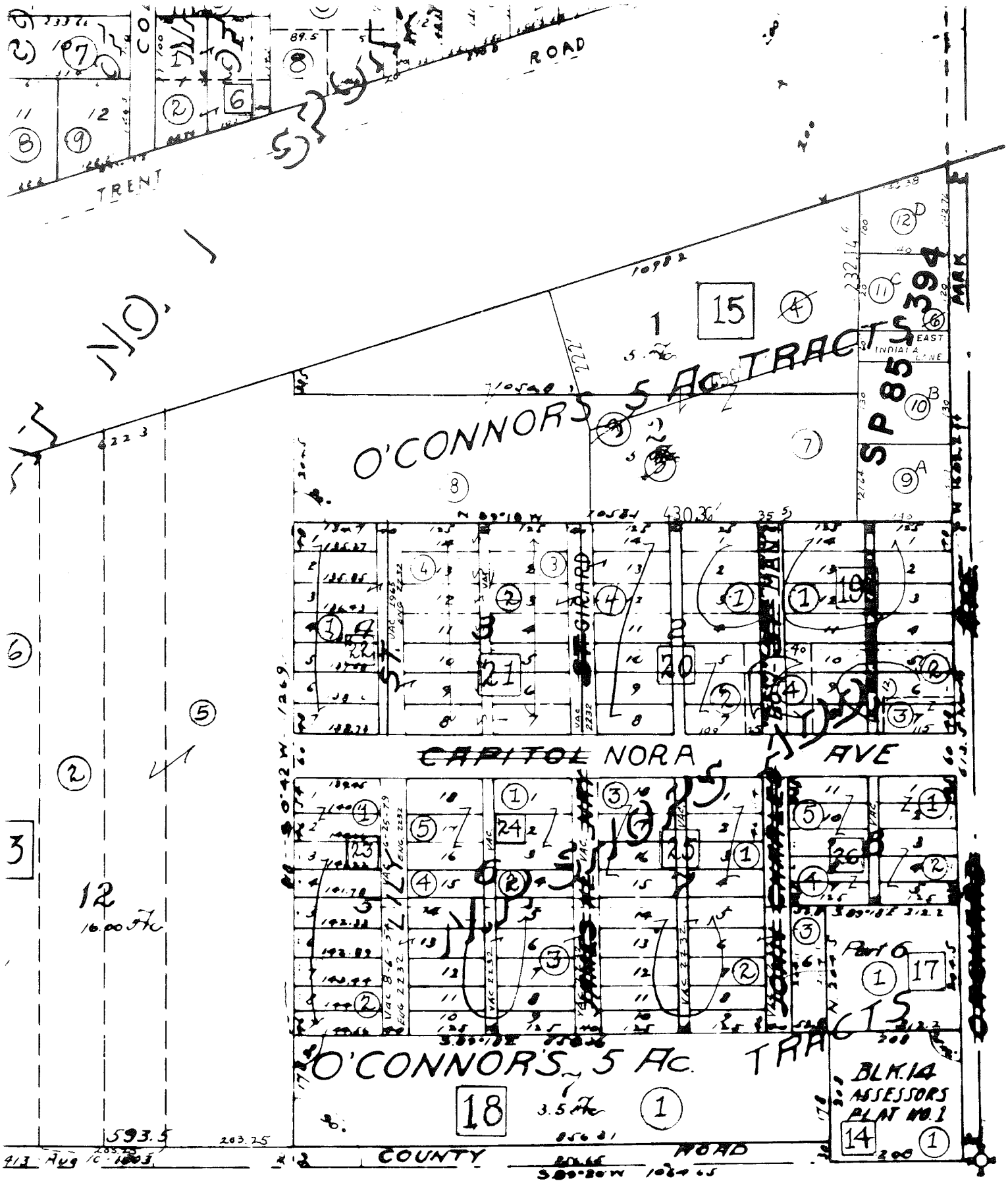
The thinner also has been sold.

- Ramer has been in business for 22 years & some mismanagement of waste probably did occur before awareness. They got rid of MEK 4 years ago.

- channel 6 news will be interviewing (b) (6), (b) (7)(C) tonight along with another employee.

- (b) (6), (b) (7)(C) was working for him up to (b) (6), (b) (7)(C) ago. Was employed as a (b) (6), (b) (7)(C) but was found to have illegally used company credit cards.

Secretary gave me MSDS sheets I had requested on Thurs.



TRENT
ROAD
NO. 1
O'CONNORS 5 Ac TRACTS
15
SP 85 394
EAST INDIANA LANE
PARK
CAPITOL NORA AVE
GIRARD
LILY
O'CONNORS 5 Ac. TRACTS
18
3.5 Ac
BLK. 14 ASSESSORS PLAT NO. 1
14
17
Part 6
12
16.00 Ac
593.5
COUNTY ROAD

```
ACTION: R SCREEN: NAME USERID: INQ
-------------------- PARCEL NAME/ADDRESS ---------------------------------------- CHANGE-REASON:
JURISDICTION= 11 YR= 90 ROLL= RE PARCEL= 35124.1305
-------------------------------------------------------------------------------- CU: 11
SAMPLE   | 1600.. A PENNSYLVANIA........ AVE NW 123.. | OLD PID   12534-1305
ADDRESS  | WASHINGTON..... DC 20202..... USA  EDIT? Y | ALTKEY    0946613
---------+----------------------------------------------+-----------------------
OWNER    | NPRR                                BK/PG?  | DEED BK/PG
CO-OWNR  | % 2100 1ST INST CTR                         | DEED ALTKEY
STREET   | 000999   3RD                        AVE     | DOB(YYMMDD)
ADDRESS  | SEATTLE          WA 98104           EDIT? N | %OWNERSHIP 100.00
         |                                             | SUBDIVISION Z99999
SITUS    | 7101      MISSION                   AVE E   | ACTIVITY
ADDRESS  | SPOKANE                TAX DISTRICT: TD2640 | STAT/CMP A  COMPLETE
---------+----------------------------------------------+-----------------------
SPECIAL  | BURLINGTON NO RR CO                 *       | BILLS TO MORTGAGE CO.
BILLING  | 000999   3RD                        AVE     |   CODE:
ADDRESS  | SEATTLE          WA 98104           EDIT? N |   ACCT:
---------+----------------------------------------------+-----------------------
FIELD BOOK ID.        ID:                                JYR: 11     RE RC. FB
RELATION2............ ID:                                JYR:           RC:
```

```
ACTION: R SCREEN: LEGL USERID: INQ
H-  ------------------------------------------------------------------------------ CHANGE-REASON:
    LEGAL DESCRIPTION
    ------------------------------------------------------------------------------
    JURISDICTION= 11 ROLL= RE PARCEL= 35124.1305                                YEAR= 90
    PAGE= 1
    LINE
    =   ==   ------------------------------------------------------------------
                                  DESCRIPTION
01- 1   10   ASSESSORS PLAT 1 PTN OF BLK 12; E406.5FT EXC W1/2 OF W20
02- 1   20   3.25FT & EXC HWY
03-
04-
05-
06-
07-
08-
09-
10-
11-
12-
03-*L009 HEADER CHANGE
ACTION: R SCREEN: ASMT USERID: INQ
-------------------- A S S E S S M E N T  I ------------------------------------ CHANGE-REASON:
JURISDICTION= 11 ROLL= RE PARCEL= 35124.1305
DISTRICT: TD2640 LATE-FILING-FLAG: N PROPERTY-CLASS: 0000 SPECIAL-USE:                YEAR= 90
                        (1)        (2)        (3)        (4)
              TOTAL     MKT-LD     CLS-LD     BLDG-1     OTHER      O/R   METHOD
  APPRAISED:  461,600   437,700          0    23,900         0      N   ENTERED
  NEW CONST:  461,600   437,700          0    23,900         0
      LEVEL:   100.00    100.00     100.00    100.00    100.00
 ASSESSMENT:  461,600   437,700          0    23,900         0      N

    BOE/ATC:                                                          N

       SBTA:                                                          N
 FINAL ASMT:  461,600   437,700          0    23,900         0
#EXEMPTIONS:        0
```

ACTION: R SCREEN: NAME USERID: INQ 43-25-12 CHANGE-REASON:

PARCEL NAME/ADDRESS

JURISDICTION= 11 YR= 90 ROLL= RE PARCEL= 35124.2201 CU: 11

SAMPLE	1600.. A PENNSYLVANIA..... AVE NW 123..	OLD PID 12534-2201
ADDRESS	WASHINGTON..... DC 20202..... USA EDIT? Y	ALTKEY 0946826
OWNER	PACEMAKER IND BK/PG?	DEED BK/PG
CO-OWNR		DEED ALTKEY
STREET	000000 PO BOX 11527	DOB(YYMMDD)
ADDRESS	SPOKANE WA 99211-1527 EDIT? N	%OWNERSHIP 100.00
		SUBDIVISION Z99999
SITUS	7203 NORA AVE E	ACTIVITY
ADDRESS	SPOKANE TAX DISTRICT: TD2640	STAT/CMP A COMPLETE
SPECIAL	PACEMAKER IND INC *B *	BILLS TO MORTGAGE CO.
BILLING	000000 PO BOX 11527	CODE:
ADDRESS	SPOKANE WA 99211-1527 EDIT? N	ACCT:

FIELD BOOK ID. ID: JYR: 11 RE RC: F

RELATION2..... ID: JYR: RC:

11:06 7-17-90 Claude, Wally & Bruce Sheppard
Jeff, John, & Bruce

Backhoe will begin digging this aft. must set boundaries for escavation. operator will be able to tell if trench has already been dug.

BN - permission given to dig
Sampling - if drums found
drums & soil
* copy of results to BN
will take 2 composite samples
for MEK along side building
* will check w/ Ramer to get on site

* must stay back at least 100' while escavating
newsmedia

* map of site & area where escavation took place & samples taken

TO: Jane

DATE

TIME 202

FROM Bob Ramer

OF

MESSAGE:

annual report
January
Chapter 11 bankruptcy

- ☐ Called You
- ☐ Returned Your Call
- ☐ Will Call Again
- ☐ Please Call
- ☐ Wants to See You
- ☐ Was Here To See You

SCAN NUMBER

OFF SCAN NUMBER 928-3456

INITIALS

WASHINGTON CENTENNIAL 89 ™

SF 8023 3/87 -1261-

3

A Message For You

Chrome sludge -

lab. #3197-88

12-2-88

Stole file

		m/L
	Chrome	344.5
	Total	555 mg/kg

dry paint

silver	<.01	Arsenic	<.01
lead	.101	Barium	.25
Selenium	<.005	Cadmium	.01
		Chrome	.01
		Mec	.001

PHOTO NO.: 1

DATE: 7-12-90

TIME: 2:30 p.m.

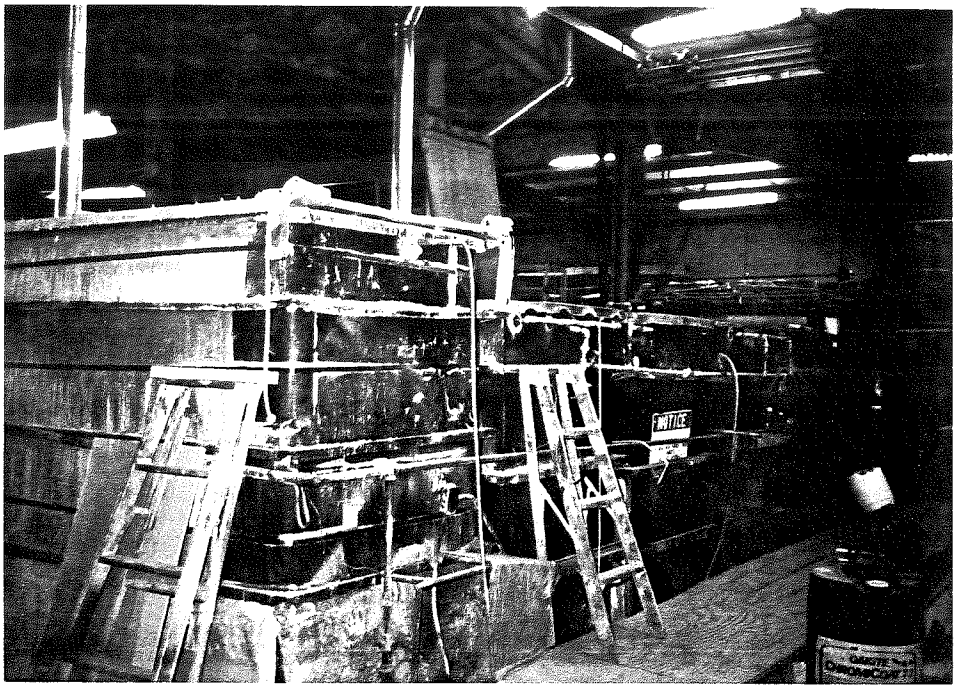
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Plating line [illegible] plating [illegible]



COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 2

DATE: 7-12-90

TIME: 2:30 p.m.

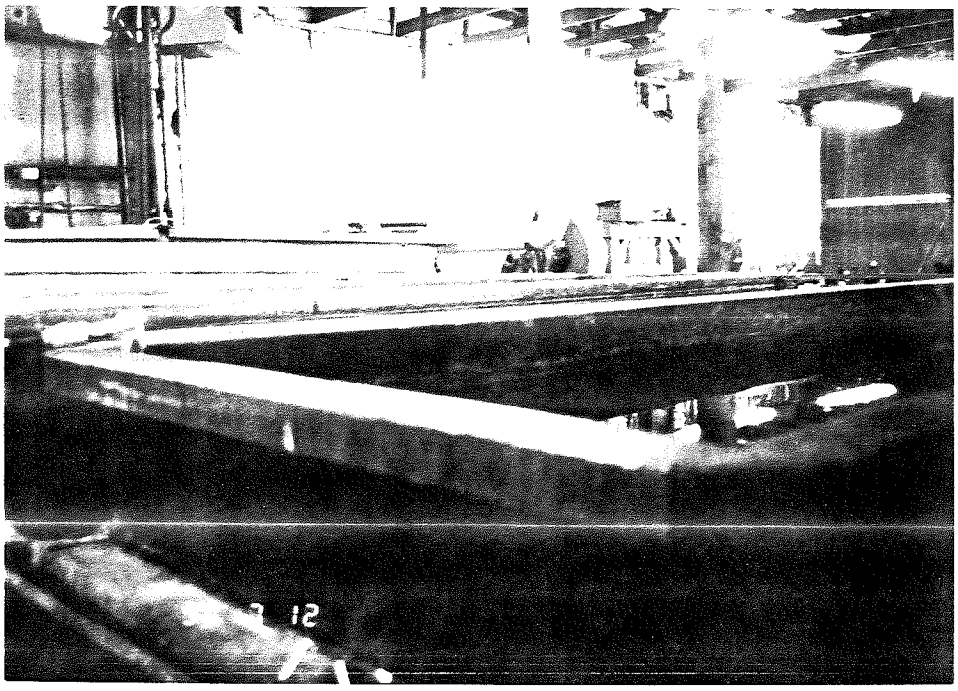
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION:



COMMENTS:

PHOTO NO.: 3

DATE: 7-12-90

TIME: 2:30 p.m.

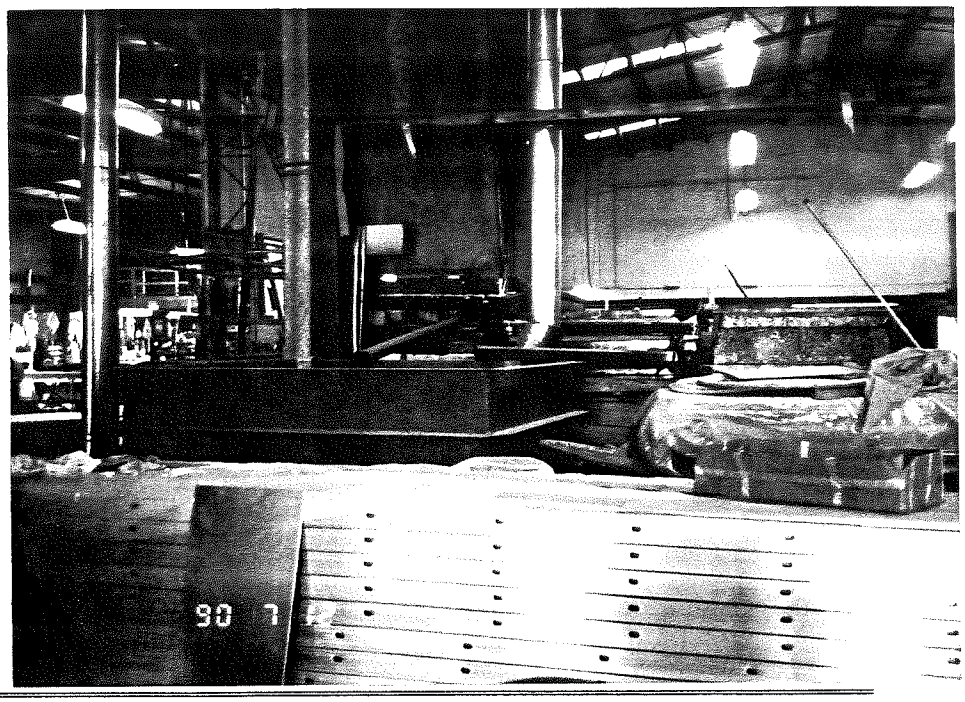
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Treatment tank



COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 4

DATE: 7-12-90

TIME: 2:30 p.m.

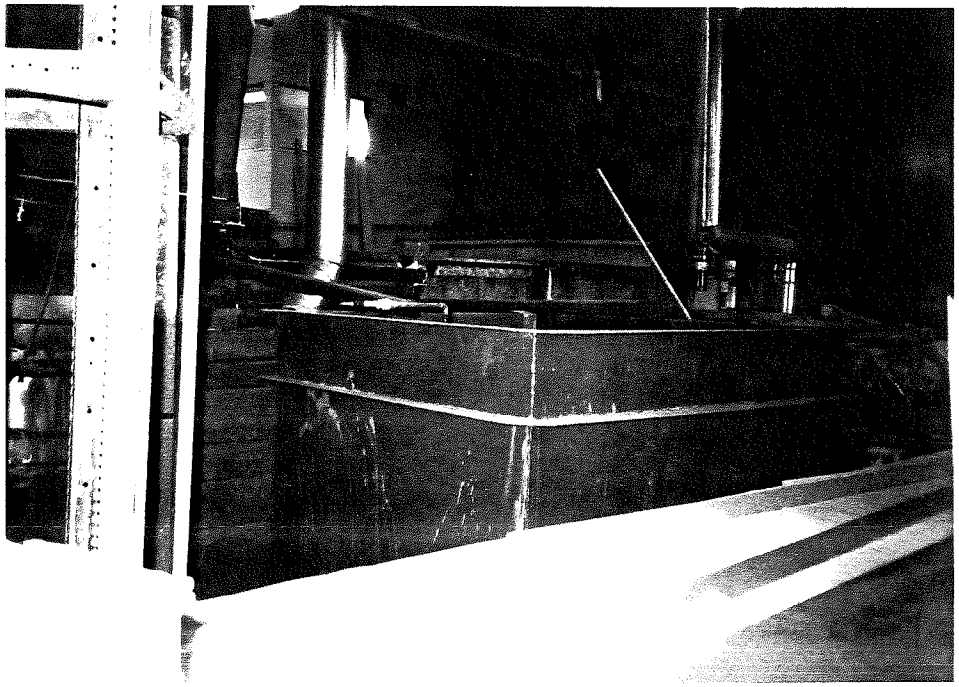
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION:



COMMENTS:

PHOTO NO.: 5

DATE: 7-12-90

TIME: 2:30 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: 6-55 gal drums of waste water with a little chrome

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 6

DATE: 7-12-90

TIME:

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: 4-55 gal drums of soap. solid

COMMENTS:

PHOTO NO.: 7

DATE: 7-12-90

TIME: 2:50 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: 3-55 gal. drums of used oil outside of maintenance shop

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 8

DATE: 7-12-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: [illegible] drum [illegible] 1 drum leftover [illegible] oil. The other drum empty

COMMENTS:

PHOTO NO.: 9

DATE: 7-12-90

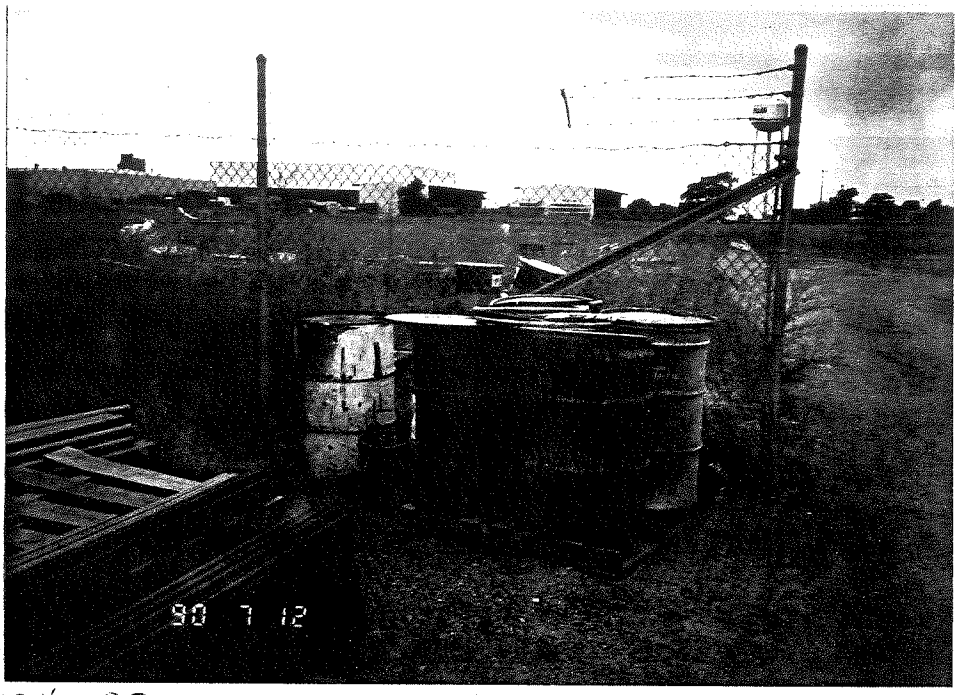
TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/O



DESCRIPTION: 1-55 gal. drums chrome contaminated wastewater evaporating white drum contains asphalt sealant

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 10

DATE: 7-12-90

TIME: 3:00 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: road leading to Burlington Northern property.

COMMENTS:

PHOTO NO.: 11

DATE: 7-12-90

TIME: 3:10 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica M-D

DESCRIPTION: 11-55gal. drums white paint product used in former stripping business

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 12

DATE: 7-12-90

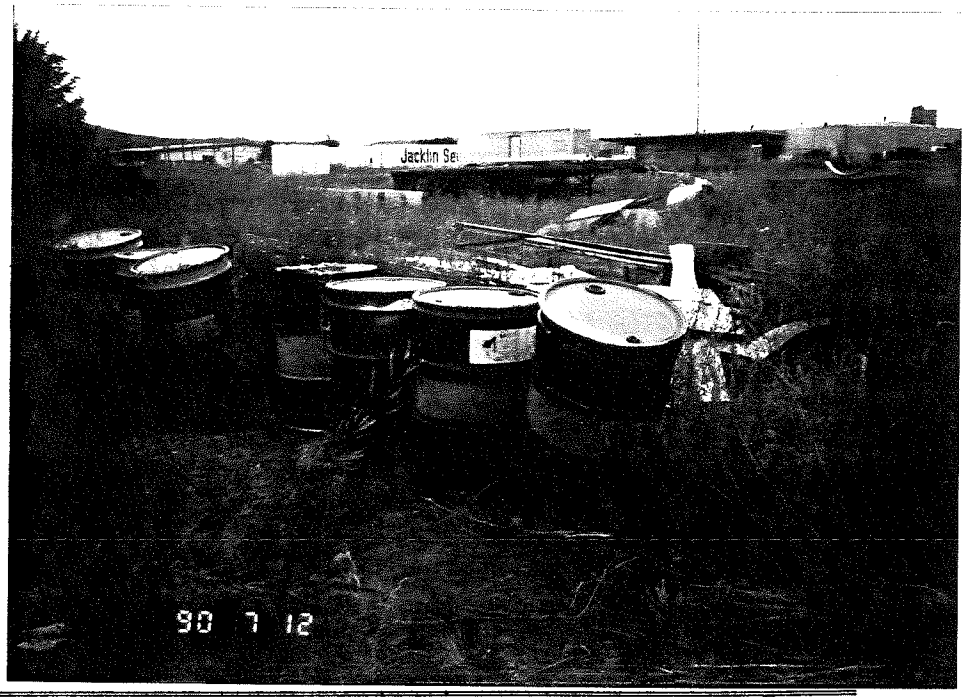
TIME: 3:10 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:



DESCRIPTION: 7-55 gal. drums of yellow paint product used in former stripping business.

COMMENTS: 4th drum from right turned upside down & was leaking some. It had come from the manufacturer with small hole in bottom of drum.

PHOTO NO.: 13

DATE: 7-12-90

TIME: 3:10 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG\D

DESCRIPTION: Mr. Hamer pointing out leaking drum of yellow paint

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 14

DATE: 7-12-90

TIME: 3:10 p.M.

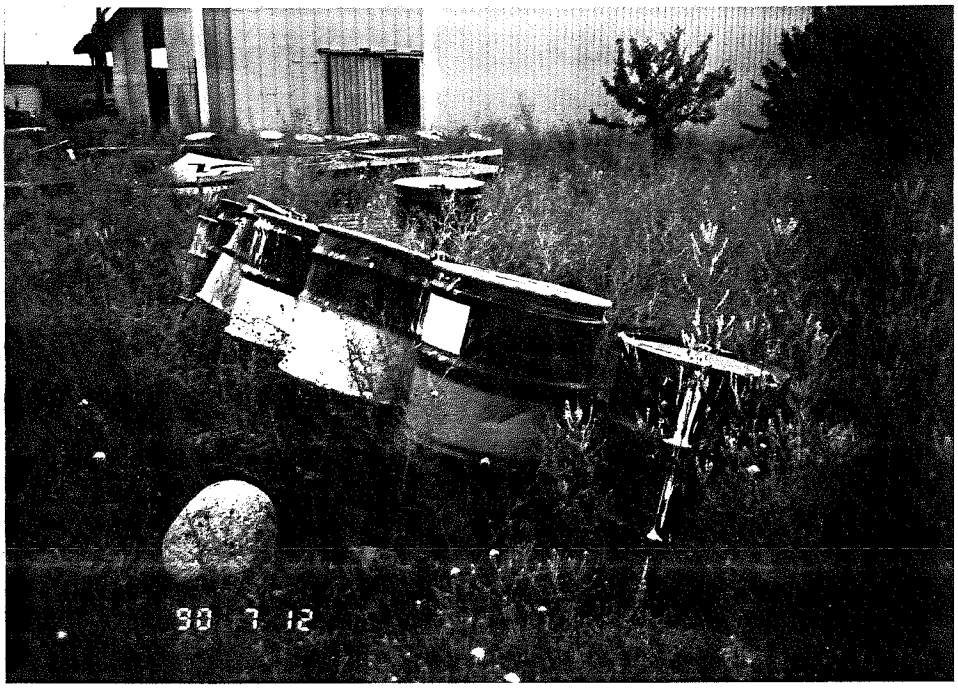
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Stored product drums of paint



COMMENTS:

PHOTO NO.: 15

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: 55 gal. drums stored adjacent to Pacemaker Industries

COMMENTS: Pacemaker Industries, Inc.

1) empty drums
2) drums containing small amounts of paint solids
3) drum containing asphalt sealer

PHOTO NO.: 16

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: [illegible] 55 gal drums [illegible] paint [illegible]

COMMENTS:

PHOTO NO.: 17

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: KONICA MG\D

DESCRIPTION: Dried solid paint waste

COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 18

DATE: 7-12-90

TIME: 3:15 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Asphalt sealant leaking from drum

COMMENTS:

PHOTO NO.: 19

DATE: 7-12-90

TIME: 3:15 p.M.

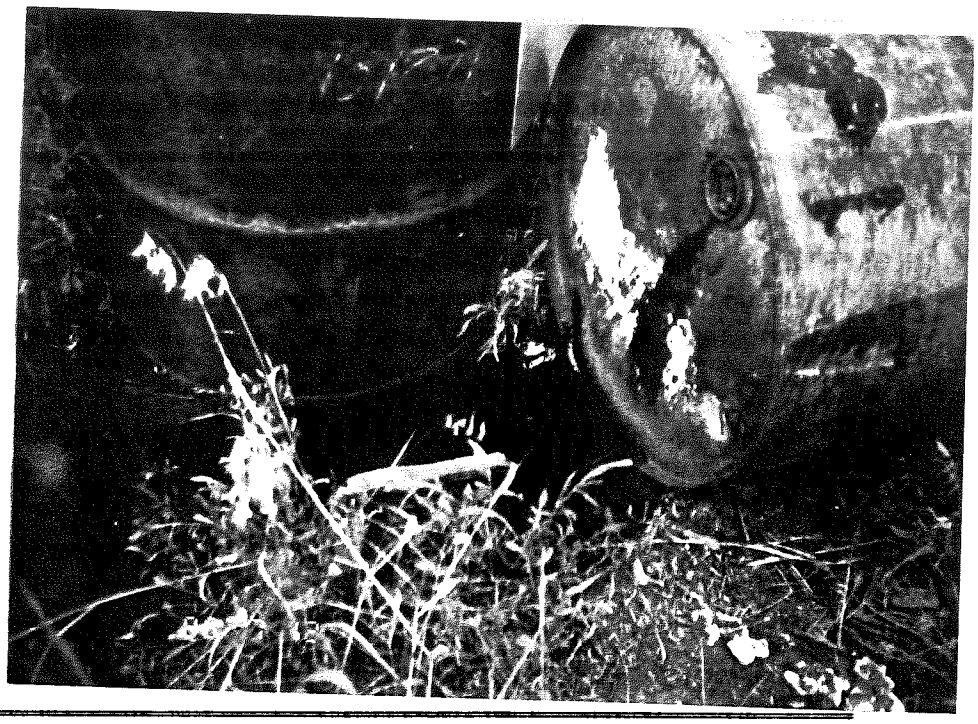
TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Asphalt sealant leaking from drum



COMMENTS: Pacemaker Industries, Inc.

PHOTO NO.: 20

DATE: 7-12-90

TIME: 3:15 p.M.

TAKEN BY: Jan Brzoska

WITNESS: Bruce Howard

FILM:

CAMERA:

DESCRIPTION: Area in center of [illegible] where drums of h.w. are alleged [illegible]

COMMENTS:

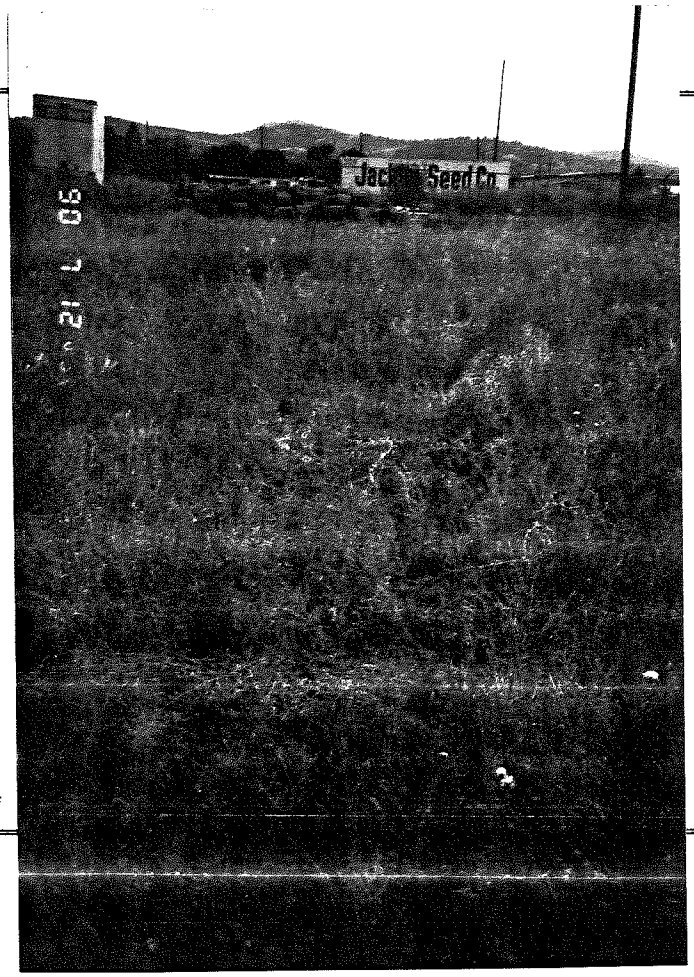


PHOTO NO.: 1

DATE: 7-16-90

TIME: 3:00p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: drums to be tested that may designate as d.w.

COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Follow-up

PHOTO NO.: 2

DATE: 7-16-90

TIME: 3:00P.M.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM:

CAMERA:

DESCRIPTION: 5500 drums of [illegible] product that [illegible] sold.

COMMENTS: [illegible] 1 drum [illegible] drum asphalt sealant

PHOTO NO.: 3

DATE: 7-16-90

TIME: 3:00 p.m.

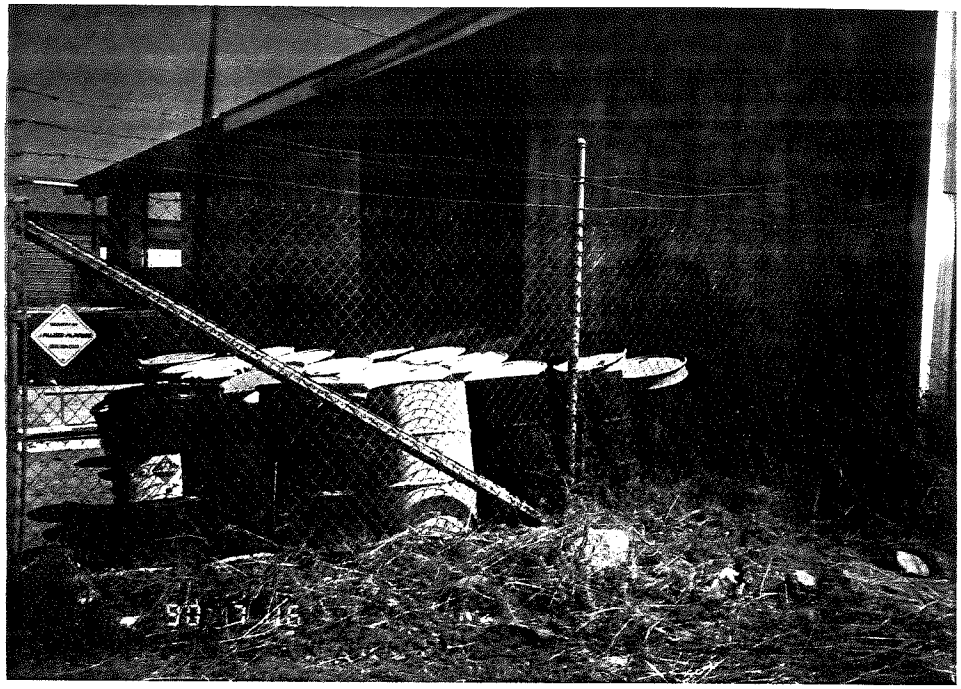
TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: drums of product paint & thinner in foreground



COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Follow-up
Area on this side of fence is where MEK was alledgedly dumped

PHOTO NO.: 4

DATE: 7-16-90

TIME: 3:05 p.m.

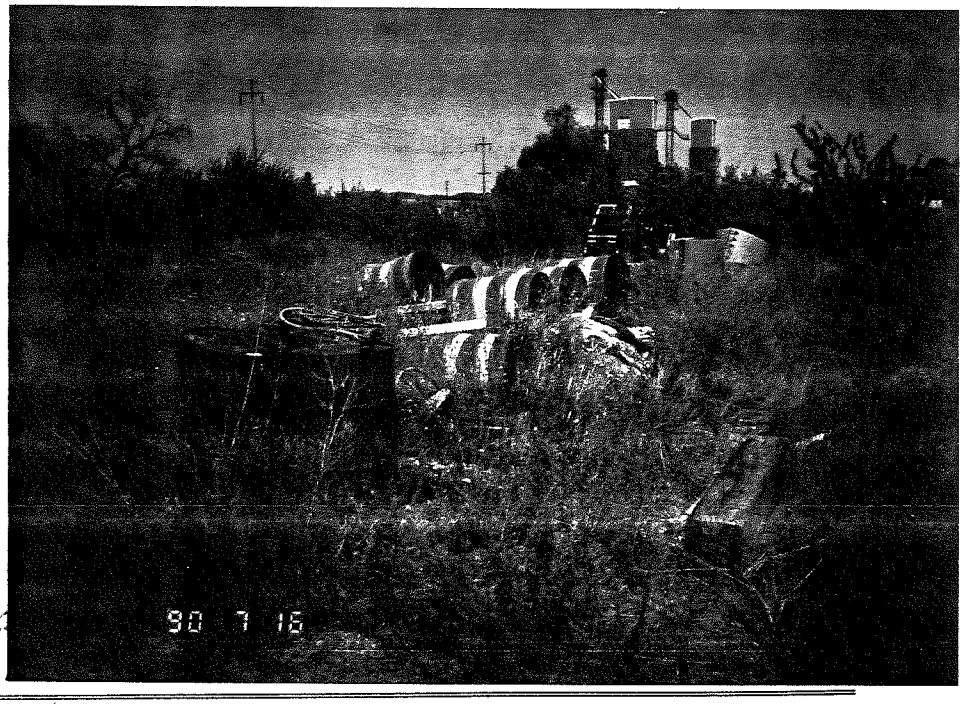
TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM:

CAMERA:

DESCRIPTION: [illegible] 2 - empty 55 gal drums in foreground



COMMENTS: Area where drums of asphalt sealant & drums with small [illegible] of dried paint sludge were removed from.

PHOTO NO.: 5

DATE: 7-16-90

TIME: 3:05 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM: Kodacolor 400

CAMERA: Konica MG/D

DESCRIPTION: Area where drums of asphalt sealant & small amts. of dried paint sludge were removed from.

COMMENTS: Pacemaker Industries, Inc. Complaint Investigation Followup

PHOTO NO.: 6

DATE: 7-16-90

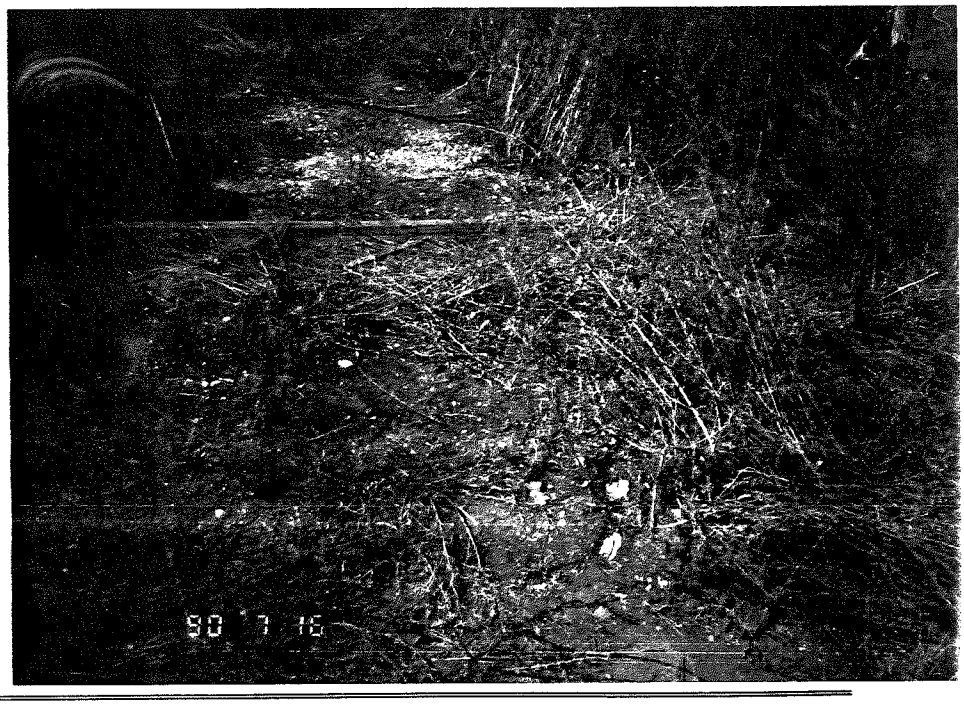
TIME: 3:05 p.m.

TAKEN BY: Jan Brzoska

WITNESS: Bob Ramer

FILM:

CAMERA:



DESCRIPTION: Traffic control Area

COMMENTS: Area where small amt. of asphalt sealant which had leaked on the ground has been removed.

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES

- P.O. BOX 11527
- E. 7203 NORA
- SPOKANE, WA 99211
- Telephone (509) 928-3456
- FAX # (509) 928-3458

RECEIVED JUL 16 1990 DEPARTMENT OF ECOLOGY SPOKANE REGIONAL OFFICE

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

TO DEPT. OF ECOLOGY
N. 4601 MONROE, SUITE 100
SPOKANE, WA 99205-1295

Date July 13, 1990 Job No.

Attention JAN BRZOSKA

Re:

Gentlemen:

We are sending you ☐ attached — ☐ under separate cover — via _____ the following items:

☐ Shop Drawings ☐ Submittals ☐ Plans ☐ Specifications ☐ Copy of Letters

☐ _____

No. of Copies	Item Number	DESCRIPTION
		Here are the material Safety Data Sheets
		You requested to see, on the Oakite Products we use.

These are transmitted as checked below:

☐ For Approval ☐ For Your Use ☐ Resubmitted ☐ Please Return _____ Copies

☐ _____

Remarks:

Copy to:

Signed Robert Ramer

...losure or reproduction, for other ...n safety and medical purposes ...hibited without authorization of ...AKITE PRODUCTS, INC.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

RECEIVED
JUL 16 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL

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: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: (201) 464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite Dispoz Aid 1
CHEMICAL FAMILY: Inorganic reducing agent	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

Not Applicable

Not Applicable

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Sodium bisulfite CAS NO. 7631-90-5	>95	5mg/M^3
None of the remaining ingredients used in the product in concentrations greater than 1%, have Threshold Limit Values established by ACGIH or OSHA, or Massachusetts substance list.		
This data pertains to unalloyed [illegible]		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1) bulk density	10.0#/gal
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	Appreciable	pH @ 1%	4.2
APPEARANCE AND ODOR	White powder; pungent odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): N/A	FLAMMABLE LIMITS: N/A	Lel	Uel
EXTINGUISHING MEDIA: Will not burn or support combustion.			
SPECIAL FIRE FIGHTING PROCEDURES: full protective gear and self-contained breathing apparatus for protection against fumes formed from decomposition.			
UNUSUAL FIRE AND EXPLOSION HAZARDS: Unknown			

(Continued on reverse side)

N/A = Not applicable

11/6/85

Form OSHA-20
Rev. May 72

RECEIVED
JUL 16 1990
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

Disclosure or reproduction without [illegible] of OAKITE PRODUCTS, INC. is prohibited

MATERIAL SAFETY DATA SHEET

45-018

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: 201-464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite Dispoz Aid 2
CHEMICAL FAMILY: Alkali	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Calcium hydroxide CAS NO. 1305-6200	>95	5mg/M^3
This data pertains to undiluted product, not dilutions of product.		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1) Bulk density	4 #/gal.
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER @ 32°F. @ 212°F.	Slight Negligible	pH (saturated solution)	12.4
APPEARANCE AND ODOR	White powder; no odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) N/A	FLAMMABLE LIMITS N/A	Lel	Uel
EXTINGUISHING MEDIA N/A			
SPECIAL FIRE FIGHTING PROCEDURES	Firemen should wear standard protective clothing.		
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.		

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. W A D 0 4 5 7 0 5 1 7 5
Manifest Document No. 8 9 0 0 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Pacemaker Industries, Inc.
E. 7203 Nora
Spokane, WA 99206

4. Generator's Phone (509)928-3456

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Van Waters & Rogers, Inc.
6. US EPA ID Number: W A D 0 0 9 2 3 6 8 1 1
C. State Transporter's ID
D. Transporter's Phone: 509/534-0405

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
Chemical Processors, Inc.
734 South Lucile St.
Seattle, WA 98134
10. US EPA ID Number: W A D 0 0 0 8 1 2 9 0 9
G. State Facility's ID
H. Facility's Phone: 206/223-0500

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. Hazardous Waste ~~Liquid~~ SOLID, N.O.S., ORM-E N.A. 9189 (F006) (Contains Chromic Acid)	X	003	DM	1050	P	F006
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
CP30016 - VWR/PACEMAKER

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.

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: ROBERT W. RAMER
Signature: Robert W. Ramer
Month 4 Day 12 Year 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Chester K. Weedmark
Signature: Chester K. Weedmark
Month 4 Day 12 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: C.W. Chester K. Weedmark
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space
CHANGE MADE PER ROBERT RAMER
Lynn M. Frontado 5/2/89

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
FOR CHEMPRO

Printed/Typed Name: LYNN M. FRONTADO
Signature: Lynn M. Frontado
Month 4 Day 13 Year 89

ORIGINAL - RETURN TO GENERATOR

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4630 PACIFIC HIGHWAY EAST, SUITE B-14, TACOMA, WASHINGTON 98424 · TELEPHONE (206)922-2310 · FAX (206)922-5047

Report To: Olympus Environmental Date: July 30, 1990

Report On: Analysis of Soil Lab No.: 12353

IDENTIFICATION:
Samples Received on 07-20-90
Project: 90-3021 WDOE - Spokane

ANALYSIS:

Lab Sample No.	1	2
Client ID	SD-1	SD-2
Matrix/Units	Soil ppm	Soil ppm
Arsenic	47.3	50.9
Barium	251	382
Cadmium	1.8	3.5
Chromium	53.5	71.6
Lead	134	214
Mercury	< 0.1	< 0.1
Selenium	< 0.5	< 0.5
Silver	< 0.1	< 0.1
2-Butanone (MEK)	< 5.0	< 5.0

SOUND ANALYTICAL SERVICES

C. Larry Suraw

C. LARRY SURAW

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

OLYMPUS ENVIRONMENTAL, INC.

Lab results on soil samples taken by Olympus.

Jeff

Date: AUG 6, 1990

To: JEFF DILL

FAX Number: 509-456-6175

Phone Number: N/A

From: WALLY SEMONI

Work Order Number:

Number of Pages (Including Cover Page): 2

Comments:

Olympus FAX Number: (206)852-0832

Environmental & Hazardous Waste Services
Kent, WA Portland, OR Helena, MT

25636 74th Ave. S. • Kent, Washington 98032 • (206) 854-5094

To: John, Claude, Jeff, etc.

From: Bruce

Re: Pacemaker Industries allegations

Date: 7/26

Here are some brief notes to bring us up to date.

I finally talked to all (b) (6), (b) (7)(C) people whose names had been given to Claude by (b) (6), (b) (7)(C) Here are summaries of what they told me.

(b) (6), (b) (7)(C)

From Mark Fuch's call to Batelle, we contacted Dr. Gerald Sandness, (509) 375-3808. He suggested several options:

1. Using a Fisher TW series metal detector, which he said works well to about 6 feet (he mentioned that metal detectors are poor in locating thin objects such as pipes, and need to be tested on large surface area items).

2. Using a magnatometer, which would read to 8 feet or more. There might be interference problems from the fence and railroad. However, he indicated it would successfully located a pile of drums very clearly. If nothing like that showed up, they'd have to do data analysis (more $). Cost range: $2500 - $5000.

3. Using ground-penetrating radar. He said this would provide a clear indication of subsurface objects to a depth of 20 to 30 feet. The cost would be similar to the magnatometer.

If we choose to bring Batelle on site, they won't be able to come until mid-August. They said they have used this equipment with a great deal of success at Hanford.

There we have it. It feels like about the same boat we were in last week. Our best options seem to be to recall Olympus for further excavation (which we would have a planned limit for, at which time we would declare that part of the investigation over), or to bring Batelle on site with more sophisiticated equipment, or both. We are looking, I think, in spending at least another 4 to 5 $K regardless. I would also like to take an additional soil sample along the side of the mechanics shop (Mr. Ramer said that would be fine). We can run that through our own lab on DW budget.

BRUCE A. SHEPPARD
Manager Environmental Engineering

BURLINGTON NORTHERN RAILROAD

2200 First Interstate Center
999 Third Avenue
Seattle, W[illegible]hington 98104-1105
206-467-[illegible]

OLYMPUS
ENVIRONMENTAL, INC.

WALLY SEMON
President

Environmental & Hazardous Waste Services
Kent, WA Helena, MT Portland, OR

25636 74th Avenue South
Kent, Washington 98032

(206) 854-5094
Mobile 972-7318

MEMO

RECYCLE, Once Is Not Enough!

FROM:

Litter Control and Recycling Program
WASHINGTON DEPARTMENT OF ECOLOGY

Labels

(b) (6), (b) (7)(C)

[redacted]

Old Court house
1st floor

West Broadway
across the bridge
Old castle
right

Printed on 100% Recycled Paper, of course

State of Washington Department of Ecology

ENVIRONMENTAL COMPLAINT

SIC # 3499

DATE 9/9/88

TIME 4:45 ☐ a.m. ☒ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☒ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E. District County Spokane

Complaint received by Jan Brzoska

1. Does the complainant wish to remain anonymous? ☒ Yes ☐ No

2. Complaint reported by:

Name Anon[illegible] ne No.

Address State Zip

3. Date(s) of violation Or[illegible] years

4. Type or kind of pollutant, [illegible]e & Hydrochloric Acid

5. Statement of problem C[illegible] quipment in back of facilit[illegible]s of solvent in back and [illegible]eir building. A PVC [illegible] ground 5 feet down 2 ye[illegible] was eatten clear through & had to be replaced.

Paint from traffic marking

Norris paint – Salem, Oregon

Wa. State Highway paint

(b) (6),

6. Alleged violator or source:

Name Pacemaker Industries, Inc. 928-3456

Address E. 7203 Nora Spokane (City) WA (State) (Zip)

7. Where did the violation occur?: Street Above

City County

Directions to place of incident: Use reverse side for notes

Watercourse, if any

8. Description of damage (dead fish, etc.)

Referred to Jan Brzoska (Name) for investigation on

(Use back of this form for sketch, map, additional notes, etc.)

PACEMAKER

PACEMAKER INDUSTRIES, INC.
EAST 7203 NORA AVENUE
P. O. BOX 527 — PARKWATER STATION
SPOKANE, WASHINGTON 99211
TELEPHONE 1 (509) 928-3456

ROBERT W. RAMER
PRESIDENT
TRAFFIC CONTROL DEVICES
SIGNS — BLANKS — ACCESSORIES

ECY 010-23 Rev. 5/81

State of Washington Department of Ecology

ENVIRONMENTAL COMPLAINT

SIC # 3499

DATE 9/9/88

TIME 4:45 ☐ a.m. ☒ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☒ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E. District County Spokane

Complaint received by Jan Brzoska

1. Does the complainant wish to remain anonymous? ☒ Yes ☐ No

2. Complaint reported by:

Name Anonymous Telephone No.

Address City State Zip

3. Date(s) of violation On-going for past (b) (6), (b) (7) (C) years

4. Type or kind of pollutant, if known Methyl Ethyl Ketone, & Hydrochloric Acid

5. Statement of problem Clearing out paint equipment in back of facility & burying drums of solvent in back and in field next to their building.

A PVC pipe put in the ground 5 feet down 2 years ago was eatten clear through & had to be replaced.

6. Alleged violator or source:

Name Pacemaker Industries, Inc. 928-3456

Address E. 7203 Nora Spokane (City) WA (State) Zip

7. Where did the violation occur?: Street Above

City County

Directions to place of incident: Use reverse side for notes

Watercourse, if any

8. Description of damage (dead fish, etc.)

Referred to Jan Brzoska (Name) for investigation on

(Use back of this form for sketch, map, additional notes, etc.)

PACEMAKER

PACEMAKER INDUSTRIES, INC.
EAST 7203 NORA AVENUE
P. O. BOX 527 — PARKWATER STATION
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TELEPHONE 1 (509) 928-3456

ROBERT W. RAMER
PRESIDENT
TRAFFIC CONTROL DEVICES
SIGNS — BLANKS — ACCESSORIES

ECY 010-23 Rev. 5/81

9/14/88 9:50 a.m. Jim Malm and I met with Robert Ramer, President of Pacemaker Inc. He said no drums of solvent or any other dangerous waste had been buried in the back of his facility or in the ajacent field. We looked at the area, but saw no signs of drums being buried. Mr. Ramer said the PVC pipe had broken in the area under the driveway and was broken due to the weight off the trucks driving over it not due to any chemicals in the ground

Pacemaker was in the process of cleaning out their paint striping equipment at the time of the investigation. They were putting dried paint sludge in 55 gallon drums. We informed them that the sludge needed EP toxic test for chrome & lead contamination

Paint thinner is used to clean out screens. The waste is put in 55 gallon drums & solvent evaporated off. Very small quantities of sludge remains & is stored in a drum.

To clean the aluminum, the article is first placed ① in a tank of caustic cleaner soap, then ② a tank of rinse water, ③ a deoxidizer (acid) tank, ④ rinse water tank ⑤ chrome tank & then ⑥ rinse tank and finally into a drying tank.

The chrome tank is cleaned out every 2 years. It is neutralized and placed in 55 gallon drums to evaporate off. To speed evaporation, the liquid is poured in a small contained area. The sludge they will send to Arlington.

The deoxidizer and soap are put into a holding tank where they are neutralized and discharged into a drain field. A water quality permit will be needed.

3:50 9/15/88 said they had been receiving anonymous phone call & other forms of harassment

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This data pertains to undiluted product, not dilutions of product. 45-010

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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: OAKITE PRODUCTS, INC.	EMERGENCY TELEPHONE NO.: (201) 464-6900
ADDRESS (Number, Street, City, State, and ZIP Code): 50 Valley Road, Berkeley Heights, New Jersey 07922	
CHEMICAL NAME AND SYNONYMS:	TRADE NAME AND SYNONYMS: Oakite ChromiCoat L-25
CHEMICAL FAMILY: Acid	FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

NOT APPLICABLE

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES (see attached sheet)		%	TLV (Units)
Chromic acid CAS NO. 13530-68-2 (as Cr 5.6%)	(as CrO3)	10	0.05mg/M^3
Nitric acid CAS NO. 7697-37-2		<3	2 PPM
Hydrofluoric acid CAS NO. 7664-39-3	(as F 1.4%)	<3	3 PPM
Sodium bichromate CAS NO. 10588-01-9		<5	0.05mg/M^3 as C
Manganese nitrate CAS NO. 10377-66-9		<5	5 ppm as Mn

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	Unknown	SPECIFIC GRAVITY (H_2O=1)	1.142 at 68°F.
VAPOR PRESSURE (mm Hg.)	Unknown	PERCENT, VOLATILE BY VOLUME (%)	Negligible
VAPOR DENSITY (AIR=1)	Unknown	EVAPORATION RATE (butyl acetate = 1)	Negligible
SOLUBILITY IN WATER	Complete	pH @ 2.5% by volume	1.6

APPEARANCE AND ODOR: As received, burnt orange liquid; as used, orange solution; no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): None.	FLAMMABLE LIMITS: N/A	Lel	Uel
EXTINGUISHING MEDIA: will not burn or support combustion under normal circumstances			
SPECIAL FIRE FIGHTING PROCEDURES: If necessary, use water. Avoid spattering or splashing this material. Wear full protective clothing including self contained breathing appartus for protection against fumes formed by decomposition.			
UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong oxidizing material. Contact with organic materials or oxidizable materials may cause violent reactions.			

(Continued on reverse side)

N/A = not applicable

11/6/85

Form OSHA-20
Rev. May 72

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Mixture: unknown. See Section II.

EFFECTS OF OVEREXPOSURE

Direct contact causes severe burns of eyes and skin that may or may not be immediatel visible. Inhalation of mist may cause irritation of mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

See attached sheet.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		N/A
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)* Combustible, oxidizable or organic materials; chlorine-releasing materials; alkaline materials.

HAZARDOUS DECOMPOSITION PRODUCTS

If heated to decomposition may emit acidic fumes and fumes of oxide of nitrogen.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		N/A
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Spills or leaks should be contained with a non-combustible absorbent such as vermiculite, dry sand or earth. Collect spilled material. Flush area with water and neutralize remaining traces with soda ash. Dispose of all materials by appropriate waste disposal method.

WASTE DISPOSAL METHOD

See attached sheet.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*

None required under normal use condit ons.

VENTILATION	LOCAL EXHAUST	SPECIAL
	Provide adequate ventilation for removal of mist.	
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Neoprene, vinyl or acid resistant	Safety goggles.

OTHER PROTECTIVE EQUIPMENT

Neoprene, vinyl or acid resistant apron, sleeves or other suitable protective clothing; face shield. Recommend eye wash and safety shower near use area.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with eyes, skin and clothing. Wash very thoroughly with soap and water after handling. Avoid breathing mist. Store out of direct sunlight at moderate temperatures below 120°F. Before opening, relieve any pressure build-up in drum by loosening closure slowly. Store away from combustible, organic or readily oxidizable materials.

OTHER PRECAUTIONS

Avoid contact or mixing with chlorine-releasing materials. Avoid contact with glass, ceramic or concrete. If contact is made, rinse surface promptly and thoroughly with water. Keep container closed when not in use. (If slight precipitation occurs on prolonged storage, agitate to restore).

GPO 930-540

Form OSHA-20
Rev. May 72

The information herein is given in good faith, but no warranty expressed or implied is made

U.S. DEPARTMENT OF LABOR
C ıpational Safety and Health Administr ɔn

Form Approved
OMB No. 44-R1387

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 Industrial Chemical Products/West, Inc.	EMERGENCY TELEPHONE NO. (213) 961-9581
ADDRESS *(Number, Street, City, State, and ZIP Code)* 15378 Proctor Avenue, City of Industry, CA 91745	
CHEMICAL NAME AND SYNONYMS Acid Desmutter	TRADE NAME AND SYNONYMS Deoxidizer HS
CHEMICAL FAMILY Acid Liquid	FORMULA Proprietary

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (Units)
Nitric Acid	<	50	
Hydrofloric Acid	<	15	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	>	212°F	SPECIFIC GRAVITY (H_2O=1)	1.20
VAPOR PRESSURE (mm Hg.)	>	1	PERCENT, VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR=1)	<	1	EVAPORATION RATE (Buac =1)	< 1
SOLUBILITY IN WATER		Complete		
APPEARANCE AND ODOR		Clear, colorless liquid with acrid odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Mixture unknown
EFFECTS OF OVEREXPOSURE	Can cause burns to skin. Corrosive to eyes.
EMERGENCY AND FIRST AID PROCEDURES	Flush affected area with copious volumes of water. Seek immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATABILITY *(Materials to avoid)*	Strong Alkalis, Oxidizers		
HAZARDOUS DECOMPOSITION PRODUCTS	Nitrous oxide		
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Avoid contact with spill, flush material to treatment drain with water.
~~Rinse spill area with water.~~

WASTE DISPOSAL METHOD: Neutralize with mild alkali to Ph 6-8.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*	Recommended		
VENTILATION	LOCAL EXHAUST	Exhaust Fan	SPECIAL
	MECHANICAL *(General)*	Recommended	OTHER
PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Safety eye goggles
OTHER PROTECTIVE EQUIPMENT	Rubber Apron		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store near oxidizers or cyanide.

OTHER PRECAUTIONS

GPO 834-180

Form OSHA-20
Rev. May 72

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45019

MATERIAL SAFETY DATA SHEET (MSDS)

OAKITE ENHANCE

27-PC-44

SECTION I

		EMERGENCY TELEPHONE NO.
TRADE NAME (if None, Put Chemical)	Oakite Enhance	(201) 464-6900 (7AM-5PM)
CHEMICAL NAME AND SYNONYMS	NA- MIXTURE	
MANUFACTURER'S NAME AND TELEPHONE NO.	Oakite Products, Incorporated	(800) 424-9300 (CHEMTREC)
ADDRESS (Number, Street City, State, Zip Code)	50 Valley Road	Berkeley HeightsNJ 07922

SECTION II – HAZARDOUS INGREDIENTS

	%	TLV	PEL	UNITS
Sodium xylenesulfonate (CAS #1300 72 7)	10-20	NE	NE	
Diethylene glycol butyl ether (CAS #112 34 5)	<10	NE	NE	
Ethoxylated nonyl phenol (CAS #9016 45 9)	<10	NE	NE	
Polypropylene glycol 2000 (CAS #25322 69 4)	<5	NE	NE	
Naphthalenesulfonate formaldehyde, condensed (No CAS # available)*	<5	NE	NE	
Non-hazardous ingredients**	Bal.			

*Supplier unable to provide complete compositional information

THIS PRODUCT DOES NOT CONTAIN ANY KNOWN CARCINOGEN.

**Unidentified ingredients are not considered hazardous under the Federal Hazard Communication Standard (29 CFR 1910.1200).

SECTION III – PHYSICAL DATA

BOILING POINT (°F)	>212	SPECIFIC GRAVITY (H_2O=1)	1.057
VAPOR PRESSURE (MM Hg.)	<18	PERCENT VOLATILE BY VOLUME (%)	50
VAPOR DENSITY (AIR=1)	NE	pH (concentrate)	4-6
SOLUBILITY IN WATER	Complete	EVAPORATION RATE (BuAc=1)	<1

APPEARANCE AND ODOR: Light yellow liquid; slight odor

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	LEL NA	UEL NA

EXTINGUISHING MEDIA: Use media suitable for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES: No special procedures required.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

NA - Not Applicable NE - Not Established UN - Unavailable

SECTION V – HEALTH HAZARD INFORMATION

SYMPTOMS/EFFECTS OF OVEREXPOSURE Inhalation of mist may cause respiratory irritation. Possible skin irritation. Eye contact may cause severe irritation.

FIRST AID

EYES Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

SKIN Remove contaminated clothing and wash skin with plenty of water. If irritation persists, seek medical attention. Wash clothing before reuse.

INHALATION Move victim to fresh air. Get medical help if irritation persists.

INGESTION Contact local poison control center or physician IMMEDIATELY!

SECTION VI – REACTIVITY DATA

STABILITY Stable

INCOMPATIBLE MATERIALS None known

HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, Carbon dioxide, Sulfur dioxide, traces of Formaldehyde

SECTION VII – SPILL OR LEAK PROCEDURES

PROCEDURES Wear personal protective equipment (See Section VIII). Clean up with absorbant material.

WASTE DISPOSAL METHOD Dispose of in accordance with Local, State, and Federal regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for dusts and mists.

EYEWEAR Wear chemical safety goggles.

CLOTHING/GLOVES Wear neoprene or other chemical-resistant gloves.

VENTILATION Local exhaust may be necessary under some handling/use conditions. Specific needs should be addressed by supervisory or health/safety personnel.

SECTION IX – SPECIAL PRECAUTIONS

Store in closed container.

APPROVAL		
NAME	TITLE	DATE
[illegible]	CIH	February 7, 1986

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.

Jan

COPY

December 20, 1988

Mr. Robert W. Ramer, President
Pacemaker Industries
E. 7203 Nora Avenue
Spokane, WA 99212

Dear Mr. Ramer:

The waste sludge remaining from cleaning out your chrome tank designates as a dangerous waste (F006). This wastewater treatment sludge from your electroplating operating must be sent to a proper dangerous waste disposal facility.

I have enclosed an assistance list which will help you in locating a dangerous waste management transporter and disposal facility.

To document that the sludge has been sent off-site, send a copy of the signed and dated manifest to me at the Eastern Regional Office of the Department of Ecology.

If you have any questions, please call for assistance.

Sincerely,

Jan Brzoska
Waste Management Section

JB:adw

Enclosure

LETTER OF TRANSMITTAL

PACEMAKER INDUSTRIES INC.

• P. O. BOX 11527
• E. 7203 NORA
• SPOKANE, WA 99211
• Telephone (509) 928-3456

RECEIVED
DEC - 6 1988
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL

TO Wa. Dept. of Ecology
N. 4601 Monroe, Suite 100
Spokane, WA 99205-1295

Date Dec. 5, 1988 Job No.

Attention Jan Brzoska

Re: ABC Lab reports

Gentlemen:

We are sending you [X] attached — [ ] under separate cover — via f/c/m the following items:

[ ] Shop Drawings [X] Submittals [ ] Plans [ ] Specifications [ ] Copy of Letters

[ ]

No. of Copies	Item Number	DESCRIPTION
1		Copy of ABC Lab no. 31997-88 re Chrome Sludge and Paint

These are transmitted as checked below:

[ ] For Approval [X] For Your Use [ ] Resubmitted [ ] Please Return _____ Copies

[ ]

Remarks:

Copy to:

Signed Robert W. Ramer

Robert W. Ramer, Pres.

RECEIVED
DEC - 6 1988
DEPARTMENT OF ECOLOGY
SPOKANE

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99212
509-534-0161

REPORT TO: Pacemaker Ind.
E. 7203 Nora
Spokane, WA 99212

LAB NO: 31997-88
DATE: 12-02-88
DATE REC'D: 11-07-88
P.O.#

ATTN: David

DESCRIPTION: Perform E.P. Toxicity for Heavy Metals and Total Metals on submitted sample.

TESTS		RESULTS Chrome Sludge	Paint
Arsenic, As, mg/L	liquid	0.014	<.010
Barium, Ba, mg/L		<.25	<.25
Cadmium, Cd, mg/L		0.043	0.010
Chromium, Cr, mg/L		344.5	0.019
Mercury, Hg, mg/L		<.0010	<.0010
Lead, Pb, mg/L		0.367	0.101
Selenium, Se, mg/L		<.005	<.005
Silver, Ag, mg/L		0.032	<.010
Total			
Arsenic, As, mg/kg		5.38	
Barium, Ba, mg/kg		<15	
Cadmium, Cd, mg/kg		2.93	
Chromium, Cr, mg/kg	solid	555	
Lead, Pb, mg/kg		6.96	
Mercury, Hg, mg/kg		0.0057	
Selenium, Se, mg/kg		<.005	
Silver, Ag, mg/kg		0.047	

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PACEMAKER INDUSTRIES, INC.

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt
Manager

State of Washington
Department of Ecology

ENVIRONMENTAL COMPLAINT

DATE 12/23/88

TIME 11:30 ☐ a.m. ☐ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☑ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E District County

Complaint received by Peterson

1. Does the complainant wish to remain anonymous? ☐ Yes ☐ No

2. Complaint reported by:

Name Unknown Telephone No.

Address City State Zip

3. Date(s) of violation On-going

4. Type or kind of pollutant, if known Metals

5. Statement of problem Woman says she talked with a past employee of Pace Makers in Spokane — said that the company as an operation requiring anodizing metal — have two dip tanks. Every two months they dump the two tanks "out back" in a lot behind the business. She seemed to know what she talked about and swore to the validity of the source.

6. Alleged violator or source:

Name PaceMaker

Address City State Zip

7. Where did the violation occur?: Street

City County

Directions to place of incident:
Use reverse side for notes

Watercourse, if any

Description of damage (dead fish, etc.)

Referred to Jan Brzoska (Name) for investigation on 1/12/89 (Date)

(Use back of this form for sketch, map, additional notes, etc.)

ECY 010-23 Rev. 5/81

ABC LABORATORIES
4922 E. UNION AVE.
SPOKANE, WA 99212
(509) 534-0161

RECEIVED
DEC - 6 1988

INVOICE NO. 7140

SOLD TO	SHIPPED TO
Pacemaker Ind.	
STREET & NO. E 7203 Nora	STREET & NO.
CITY Spokane STATE WA ZIP 99212	CITY STATE ZIP

CUSTOMER'S ORDER	SALESMAN	TERMS	F.O.B.	DATE
	31997			12-02-88

2	EP TOX	150	00	300	00
3	As, Hg, Se	20	00	60	00
4	Ba, Cd, Pb, Ag	10	50	42	00
1	Cr	13	50	13	50
				415	50

INVOICE

REDIFORM 7H 722

ABC LABORATORIES, INC.
EAST 4922 UNION AVE.
SPOKANE, WA 99212

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

REPORT TO: Pacemaker
7203 E. Nora
Spokane, WA 99211

DESCRIPTION: Perform tests as directed on submitted sample.

LAB. NO. 1846-86

DATE: May 13, 1986

TESTS	RESULTS
Hexavalent Chromium, Cr, mg/L	0.105

Respectfully submitted
ABC LABORATORIES, INC.

W.E. Burkhardt
Manager

To Whom It May Concern 5-14-86

Based on the information contained in this analysis, the levels shown above would not be regulated as Dangerous Waste under WAC 173-303.

James T. Malm

TELEPHONE USE REPORT

DATE: 11/14/88

TIME: 11:30

SUBJECT: EP Toxicity test

CALL FROM: [X] David

TO: [ ]

TELEPHONE NO.: 928-3456

CALL REC'D / MADE BY: Jan Brzoska

ROUTING

Jim

SUMMARY OF CALL:

Pacemaker has sent sample of dried paint sludge from cleaning out paint stripping equipment for testing of chrome and lead contamination. ABC labs said it would take ~2 weeks.

Jan Brzoska
(Signature)

COPY

FILE

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

November 3, 1988

Mr. Robert Ramer, President
Pacemaker Industries, Inc.
E. 7203 Nora Avenue
Spokane, WA 99211

Dear Mr. Ramer:

On September 14, 1988, Jim Malm and I investigated a complaint at your facility.

At the time of the complaint investigation, we informed you that an E.P. Toxicity test for chrome and lead contamination needed to be run on the dried paint sludge from cleaning out your paint stripping equipment. We also stated that the waste sludge remaining from cleaning out your chrome tank must be sent to a proper dangerous waste disposal site.

Please send me a copy of the E.P. Toxicity test results of the paint sludge by December 1, 1988, and a copy of the manifest documenting the off-site transport of the waste sludge.

Sincerely,

Jan Brzoska
Waste Management Section

JB:adw

CERTIFIED MAIL (P 661 776 875)

State of Washington Department of Ecology

ENVIRONMENTAL COMPLAINT

DATE 9/9/88

TIME 4:45 ☐ a.m. ☒ p.m.

☐ WATER QUALITY ☐ WATER RIGHTS ☐ SHORELANDS ☐ AIR

☒ HAZARDOUS WASTES ☐ SOLID WASTES ☐ OTHER

Region E. District County Spokane

Complaint received by Jan Brzoska

1. Does the complainant wish to remain anonymous? ☒ Yes ☐ No

2. Complaint reported by:

Name Anonymous Telephone No.

Address City State Zip

3. Date(s) of violation on-going for past (b) (6) years

4. Type or kind of pollutant, if known Methyl Ethyl Ketone & Hydrochloric Acid

5. Statement of problem Cleaning out paint equipment in back of facility & burying drums of solvent in back and in field next to their building.

A PVC pipe put in the ground 5 feet down 2 years ago was eaten clear through & had to be replaced.

6. Alleged violator or source:

Name Pacemaker Industries, Inc. 928-3456

Address E. 7203 Nora Spokane (City) WA (State) Zip

7. Where did the violation occur?: Street Above

City County

Directions to place of incident: (Use reverse side for notes)

Watercourse, if any

8. Description of damage (dead fish, etc.)

Referred to Jan Brzoska (Name) for investigation on 9/14/88 (Date)

(Use back of this form for sketch, map, additional notes, etc.)

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