...of Pollution Control and Ecology
...ox 9583 Little Rock, Arkansas 72219
...elephone 501-562-744

...ype. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

"B"

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OR D 98 0 83 3 53 7 — Manifest Document No.: 80639

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2727 NW 29th - PORTLAND, OREGON 97210

4. Generator's Phone (503) 221-5097

A. State Manifest Document Number: AR- 80639

B. State Generator's ID:

5. Transporter 1 Company Name: JOPLIN, MO
TRI STATE MOTOR TRANSIT, INC

6. US EPA ID Number: MOD 095 038 998

C. State Transporter's ID: H11PC711

D. Transporter's Phone: 800-641-7591

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
ENSCO, INC.
47th & Smith Avenue
El Dorado, AR 71730

10. US EPA ID Number:

G. State Facility's ID: AR0000404PCB

H. Facility's Phone: (401)862-1663

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. Waste Polychlorinated Biphenyls, ORM-E, UN2315, RQ 10/4.54	015 aer ~~014~~	CW	* 29,930 ~~29,340~~ aer	P	PCB
b. WASTE POLYCHLORINATED BIPHENYLS, ORM-E UN 2315 RQ 10/4.54	026 aer ~~027~~	DM	9,209 ~~9,709~~ aer	P	PCB
c.					
d.					

*ESTIMATED WEIGHTS

J. Additional Descriptions for Materials Listed Above
a) ~~xx~~ aer Full Boxes containing Capacitors = 15
b) ~~xxx~~ aer Drums containing Capacitors = 26

K. Handling Codes for Wastes Listed Above
Scott Duncan
503-221-5097

15. Special Handling Instructions and Additional Information
Dike and contain spills, avoid contact with skin.
Alternate TSDF: Return to Generator.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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 and Arkansas state regulations.

Printed/Typed Name: ~~XXXXXXXXXXXXX~~ aer SCOTT A DUNCAN — Signature: Scott A Duncan — Month 04 Day 11 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jim Embrey — Signature: Jim Embrey — Month 04 Day 11 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

19. Discrepancy Indication Space
Ensco Wt. 39,956
P.O. Box 113 - Trans. add
Joplin, Mo.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name: Faye Andrews — Signature: Faye Andrews — Month 04 Day 15 Year 86

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

...ORIGINAL ... DELIVERED TO TREAT...

ELFTSCA 00002

Form Approved: OMB No. 2000-0404, Expires 7-31-86

...FORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . .

Manifest Document No. 20622

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
PENWALT COMPANY
2901 Taylor Way, Tacoma, WA

4. Generator's Phone (206) 627-9101

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
GENERAL ELECTRIC COMPANY

6. US EPA ID Number
ORD 980 833 537

C. State Transporter's ID

D. Transporter's Phone (503) 221-5097

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
GENERAL ELECTRIC COMPANY
2531 NW 28th - DOOR 4
PORTLAND, OREGON 97210

10. US EPA ID Number
ORD 980 833 537

G. State Facility's ID

H. Facility's Phone (503) 221-5097

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	Waste No.
a. WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315		001	CM	* 7,000	P	PCB
b. WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315		~~001~~ 4 gal	CW	15800	P	PCB
c.						
d.		*ESTIMATED WEIGHTS				

J. Additional Descriptions for Materials Listed Above
a) One PCB Transformer O/S DATE 3/10/86
b) 144 Capacitors O/S DATE 3/10/86
in ~~one~~ FOUR gal 4x4x4 wooden box

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

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.

Printed/Typed Name	Signature	Month	Day	Year
Paul E. Edquist	Paul E. Edquist	03	13	86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
GARY E SCHMALZ	Gary E. Schmalz	03	14	86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year
Scott A Duncan	Scott A Duncan	3	15	86

GENERATOR

TRANSPORTER

FACILITY

8700-22 (Rev. 4-85) Previous edition obsolete

7-BLS-C6

ORIGINAL - RETURN TO GENERATOR

ELFTSCA 00003

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: 0HD044946127
Manifest Document No.: PG-003-7
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
S. D. MYERS, INC.
P.O. BOX 4724, AKRON, OH 44310
4. Generator's Phone (216) 929-2847

A. State Manifest Document Number
B. State Generator's ID: 0HD044946127

5. Transporter 1 Company Name: S. D. MYERS, INC.
6. US EPA ID Number: 0HD044946127
C. State Transporter's ID
D. Transporter's Phone: 216-929-2847

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
S. D. MYERS, INC.
180 SOUTH AVE.
TALLMADGE, OH 44278
10. US EPA ID Number: 0HD044946127
G. State Facility's ID: 0HD044946127
H. Facility's Phone: 216-929-2847

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.	WASTE POLYCHLORINATED BIPHENYL ORM-E, UN2315, RQ TRANSFORMER OIL 110 ppm (1242)	X	6	DM	330	GAL	
b.	WASTE POLYCHLORINATED BIPHENYL ORM-E, UN2315 RQ WASTE LIQUID	X	1	DM	55	GAL	
c.	WASTE POLYCHLORINATED BIPHENYL ORM-E, UN2315 RQ HEAT EXCHANGER FLUSH WATER <10ppm	X	2	DM	110	GAL	
d.	N.O.S. CHEMICAL SPENT REAGENT		5	DM	260	GAL	

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above: SOI

15. Special Handling Instructions and Additional Information
JOB SITE OF GENERATED WASTE: PENWALT CORP. 2901 TAYLOR WAY TACOMA, WASHINGTON 98401
ATTN VAN RHODES
PENNWALT
JUL 14 1987
RECEIVED

16. GENERATOR's CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.
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.

Printed/Typed Name	Signature	Month	Day	Year
JOHN ELMS	John Elms	6	10	87

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ROBERT SCHNEIDER	Robert Schneider	6	10	87

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	Signature	Month	Day	Year
DENNIS GETZ	Dennis Getz	07	01	87

Style F15-6 Labelmaster, Chicago, IL 60646

EPA Form 8700-22 (3-84)

ELFTSCA 00004

ORIGINAL — RETURN TO GENERATOR

ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
TOXIC SUBSTANCES CONTROL ACT

OMB No. 2070-0007
Expires 5-31-88

TSCA INSPECTION CONFIDENTIALITY NOTICE

1. INVESTIGATION IDENTIFICATION		
DATE	INSPECTOR NO.	DAILY SEQ. NO.
12-14-87	3124	1

2. FIRM NAME: Penwalt Corp.

3. INSPECTOR NAME: W. Douglas Smith

4. FIRM ADDRESS: 2901 Taylor Way, Tacoma, WA 98421

5. INSPECTOR ADDRESS: EPA, 1200 6th Ave M/S AT-093, Seattle, WA 98101, (206) 442-7176

6. CHIEF EXECUTIVE OFFICER NAME: Orval J. Hugh, P.O. Box 1297, Tacoma, WA 98401

7. TITLE: Plant Mgr.

TO ASSERT A CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during inspection of the facility above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the Administrator of the Agency determines that the data contain information entitled to confidential treatment or may be withheld from release under other exceptions of FOIA.

Any or all the information collected by EPA during the inspection may be claimed confidential if it relates to trade secrets or commercial or financial matters that you consider to be confidential business information. If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of confidential business information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed as confidential business information.

A confidential business information (CBI) claim may be asserted at any time. You may assert a CBI claim prior to, during, or after the information is collected. The declaration form was developed by the Agency to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationery or by marking the individual documents or samples "TSCA confidential business information," it is not necessary for you to use this form. The inspector will be glad to answer any questions you may have regarding the Agency's CBI procedures.

While you may claim any collected information or sample as confidential business information, such claims are unlikely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).
3. The information is not publicly available elsewhere.
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is confidential business information.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your firm within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive confidential treatment.

The statement from the Chief Executive Officer should be addressed to:

[illegible] Hugh C.E.O.
[illegible] Plaza
[illegible] PA

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of this Notice. Claims may be made any time after the inspection, but inspection data will not be entered into the special security system for TSCA confidential business information until an official confidentiality claim is made. The data will be handled under the agency's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE:

PAUL E. EDQUIST

I have received and read the notice

SIGNATURE: [signature]

NAME:

TITLE: Mgr. of Envir. Affairs

DATE SIGNED: 12/14/87

If there is no one on the premises of the facility who is authorized to make business confidentiality claims for the firm, a copy of this Notice and other inspection materials will be sent to the company's chief executive officer. If there is another company official who should also receive this information, please designate below.

NAME:

TITLE:

ADDRESS:

ELFTSCA 00005

EPA Form 7740-4 (12-82) INSPECTION FILE FACILITY REGIONAL OFFICE INSPECTOR'S FILE

U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

NOTICE OF INSPECTION

Form Approved
OMB No. 2070-0007
Expires 3-31-88

1. INVESTIGATION IDENTIFICATION			2. TIME	3. FIRM NAME
DATE	INSPECTOR NO.	DAILY SEQ. NO.		
12-14-87	3124	1	1300 hrs	Pennwalt Corp.

4. INSPECTOR ADDRESS	5. FIRM ADDRESS
USEPA 1200 6th Ave M/S AT-093 Seattle, WA 98101 (206) 442-7176	2901 Taylor Way Tacoma, WA 98421

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

☑ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures, or articles within or associated with such premises or conveyance have been complied with.

☐ In addition, this inspection extends to *(Check appropriate blocks)*:

☐ A. Financial data

☐ B. Sales data

☐ C. Pricing data

☐ D. Personnel data

☐ E. Research data

The nature and extent of inspection of such data specified in A through E above is as follows:

ELFTSCA 00006

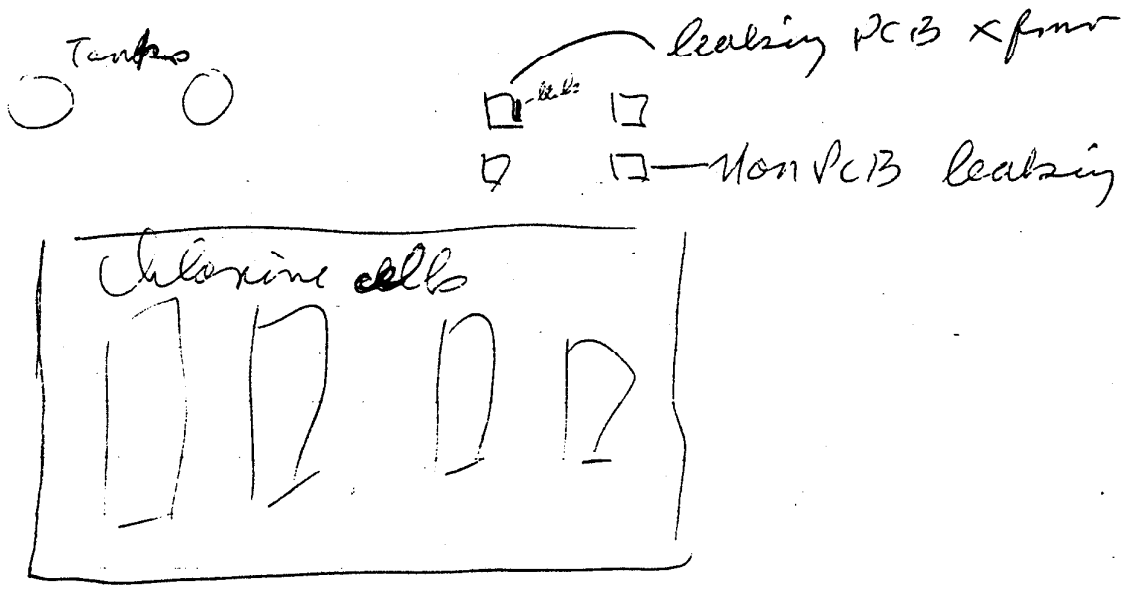
INSPECTOR SIGNATURE		RECIPIENT SIGNATURE	
W. Douglas Smith		Paul E. Fogquist	
NAME		NAME	
W. Douglas Smith		PAUL E. FOGQUIST	
TITLE	DATE SIGNED	TITLE	DATE SIGNED
Sr. Compliance Investigator	12-14-87	Mgr. of Environmental Affairs	12/14/87

EPA Form 7740-3 (12-82) INSPECTION FILE FACILITY REGIONAL OFFICE INSPECTOR'S FI

12/11/87

Doug -

- leaking PCB Transformer at:
  Penwalt Corp
  2901 Taylor Way
  Tacoma
- McClory was told about it last night by employee he has inside the company
- Transformer located in/at Chlorine Cell Room



- transformer has been leaking about a year and employees have complained, even to the President of Penwalt, who promised it would be cleaned up by 12/1. Still leaking as of yesterday. They may talk if questioned. It may be well to document the date of the visit by Penwalt's President and employee meeting.

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOURY AVENUE, SUITE A, FREMONT, CA 94

TC 0012

CUST. PENNWALT CORP CITY TACOMA WA ID # 30620000 DATE PRINTED 8/26/87

SUB. NAME ITE SUB CELL ROOM UNIT # OTHER LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	ITE	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	PDV5835-01	IMPEDENCE	5.60%
KVA	1,500	PHASE/CYCLE	3/60
PRI	13,800	LIQUID TYPE	OIL
SEC	480	GAL LIQUID	224

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	SIDE ENCLOSED
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	400/30
BOTTOM FPV	1.00 IN	OTHER ACCESS	

VISUAL INSPECTION

PAINT CONDITION LEAKS

FIELD SERVICE

5/87 FIELD SERVICE PCB GONE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78	175				175
8/14/87	23				23

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	48 C	0.2	.040	AC	30.0	QU	50	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	42 C	2.0	.050	AC	30.0	QU	49	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
2/04/86					.020	AC	37.4	AC	43	AC	0.50	AC	0.880	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	12 C	1.5	.020	AC	36.2	AC	42	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
5/30/87					.020	AC	40.2	AC			2.50	AC	0.875	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/11/78		23	7174	69053	TRACE	281	2609	TRACE	7	TRACE	311	79147
12/18/81		TRACE	4384	66652	TRACE	286	2900	6	20	TRACE	312	74248
12/29/82		TRACE	4882	63692	9	327	2563	6	21	TRACE	363	71500
11/30/83		ND	5980	58858	8	324	3547	9	25	1	367	68752
1/11/85		TRACE	5777	76562	15	379	5206	15	46	TRACE	455	88000
12/17/85		37	1294	69782	15	440	5393	11	28	ND	531	77000
1/22/87		17	1638	56625	13	326	4209	8	20	TRACE	384	62856

RECOMMENDATION
RETEST 1 YEAR

* COMMENTS
* B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

ELFTSCA 00011

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOURY AVENUE, SUITE A, FREMONT, CA 9

0035

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 2/09/87
SUB NAME GE RECT TX #6 | UNIT # FEEDS RECT #6 | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	D-596628	IMPEDENCE	10.84%
KVA	4,055	PHASE/CYCLE	3/60
PRI	12,458	LIQUID TYPE	OIL
SEC	331	GAL LIQUID	1,225

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	YES	BUSHING LOC	TOP & SIDE
OIL PUMPS		RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	
BOTTOM FPV	2.00 IN	OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION FAIR LEAKS YES/BSV

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78			13		13

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	25 C	0.0	.070	QU	26.0	UN	50	AC	1.00	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	30 C	0.5	.060	QU	26.1	UN	50	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86					.070	QU	24.1	UN	43	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	19 C	0.5	.080	QU	22.8	UN	38	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS N/N AND/OR IFT TEST INDICATES THE PRESENCE OF OXIDATION BY-PRODUCTS.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
12/18/81		49	2643	73941	38	116	1703	10	ND	ND	213	78500
12/29/82		31	7401	60688	15	89	1901	TRACE	TRACE	ND	135	70125
11/30/83		ND	6382	66555	6	164	1123	10	11	ND	191	74231
1/11/85		TRACE	4631	74903	20	215	2681	39	9	1	284	82499
12/17/85		62	2394	70964	28	256	3241	43	12	ND	401	77000
1/22/87		60	1870	78418	33	286	3162	33	14	ND	426	83876

RECOMMENDATION
RETEST 1 YEAR

COMMENTS
B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 HOWRY AVENUE, SUITE A, FREMONT, CA 94538

0042

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 2/09/87
SUB. NAME OCB FEEDS GE REG #1 | UNIT # NEW S.P. | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	ITE	EQUIP. TYPE	OCB
DATE MFG.		TRANS CLASS	
S/N	41 10093 201	IMPEDENCE	
KVA	15	PHASE/CYCLE	
PRI		LIQUID TYPE	OIL
SEC		GAL LIQUID	76

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H2O COOLED	NO	BUSHING LOC	TOP
OIL PUMPS	NO	RECLAIMER	
TOP FPV	1.00 IN	POWER V/A	
BOTTOM FPV	.75 IN	OTHER ACCESS	EXPLOSION VENT

VISUAL INSPECTION

PAINT CONDITION GOOD LEAKS NONE

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
1/04/82			4		4

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		LOW			.030	AC	30.5	AC	44	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		LOW	0 C	0.0	.020	AC	30.4	AC	46	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
12/17/85		LOW			.020	AC	29.8	AC	45	AC	1.50	AC	0.880	AC			SLT PART	QU
1/22/87		LOW	5 C		.030	AC	28.9	AC	40	AC	2.00	AC	0.880	AC	CLEAR	AC	NONE	AC

COMMENTS UNIT DOES NOT CONTAIN PAPER INSULATION. RECOMMENDATION-NO ADDITIONAL WORK UNTIL MOISTURE, MEDIUM TO HEAVY CARBON OR HIGH ACID ARE PRESENT.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

* THIS TEST IS AN INVALUABLE TOOL USED TO EVALUATE THE OPERATION OF IN-SERVICE AND
* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOWRY AVENUE, SUITE A, FREMONT, CA 9

0043

CUST. PENNWALT CORP
SUB. NAME WEST OCB

CITY TACOMA WA
UNIT # FEEDS REC #3/4

OTHER

ID # 30620000
LOCATION OUTDOOR/GROUND

DATE PRINTED 2/09/87

NAMEPLATE DATA

MFG. WEST
DATE MFG. /
S/N 5 20Y624881
KVA 95
PRI 13,800
SEC

EQUIP. TYPE OCB
TRANS CLASS
IMPEDENCE
PHASE/CYCLE
LIQUID TYPE OIL
GAL LIQUID 60

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP
OIL PUMPS	NO	RECLAIMER	
TOP FPV	1.00 IN	POWER V/A	
BOTTOM FPV	1.00 IN	OTHER ACCESS	

VISUAL INSPECTION

PAINT CONDITION GOOD LEAKS NONE

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
1/04/82			9		9

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83					.030	AC	33.4	AC	46	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
1/11/85			0 C	0.0	.030	AC	33.5	AC	49	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
12/17/85					.030	AC	33.3	AC	45	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
1/22/87			5 C		.030	AC	31.8	AC	42	AC	1.00	AC	0.880	AC			SLT CARB	QU

COMMENTS UNIT DOES NOT CONTAIN PAPER INSULATION. RECOMMENDATION-NO ADDITIONAL WORK UNTIL MOISTURE, MEDIUM TO HEAVY CARBON OR HIGH ACID ARE PRESENT.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

* THIS TEST IS AN INVALUABLE TOOL USED TO EVALUATE THE OPERATION OF IN-SERVICE AND
* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 MOWRY AVENUE, SUITE A, FREMONT, CA 94538

TC 0044

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 2/09/87
SUB. NAME MAIN SUB | UNIT # LTC FOR TC #1 | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	TAP CHANGER
DATE MFG.		TRANS CLASS	
S/N	6906868	IMPEDENCE	
KVA		PHASE/CYCLE	
PRI		LIQUID TYPE	OIL
SEC		GAL LIQUID	400

ADDITIONAL EQUIPMENT

RADIATORS		CONSERVATOR	
FANS		TAP CHANGER	
H20 COOLED		BUSHING LOC	
OIL PUMPS		RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV	2.00 IN	OTHER ACCESS	SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION BAD LEAKS NONE

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
1/04/82			16		16

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL			.080	AC	24.1	AC	41	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	0 C	0.0	.080	AC	23.4	AC	49	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
12/17/85		NORMAL			.030	AC	33.2	AC	42	AC	0.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/22/87			5 C		.030	AC	31.6	AC	40	AC	1.00	AC	0.870	AC			SLT CARB	QU

COMMENTS UNIT DOES NOT CONTAIN PAPER INSULATION. RECOMMENDATION-NO ADDITIONAL WORK UNTIL MOISTURE, MEDIUM TO HEAVY CARBON OR HIGH ACID ARE PRESENT.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

* THIS TEST IS AN INVALUABLE TOOL USED TO EVALUATE THE OPERATION OF IN-SERVICE AND
* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOWRY AVENUE, SUITE A, FREMONT, CA 94

0046

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 8/26/87
SUB. NAME CHLORINE RECTIFIER | UNIT # REG XFMR #3 | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	WEST	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	ZGR07681	IMPEDENCE	.91%
KVA	33,600	PHASE/CYCLE	3/60
PRI	13,000	LIQUID TYPE	OIL
SEC	15,800	GAL LIQUID	4,796

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	YES
H20 COOLED	NO	BUSHING LOC	TOP & SIDE ENCLOSE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	400/30
BOTTOM FPV	2.00 IN	OTHER ACCESS	SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION

LEAKS

FIELD SERVICE

5/87 PCB GONE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
3/13/87			124		124
8/14/87		10			10

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	12 C	0.7	.060	QU	33.8	AC	44	AC	3.50	UN	0.880	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	38 C	3.0	.060	QU	32.6	AC	49	AC	3.50	UN	0.880	AC	CLEAR	AC	NONE	AC
2/04/86					.060	QU	31.4	QU	44	AC	3.50	UN	0.885	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	22 C	1.7	.090	QU	27.8	UN	40	AC	4.00	UN	0.890	AC	CLEAR	AC	NONE	AC
5/30/87					.030	AC	40.5	AC			3.00	AC	0.875	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
11/30/83		ND	6506	58004	19	66	1332	30	42	ND	157	65999
1/11/85		TRACE	3212	71655	27	105	1921	37	42	TRACE	211	76999
12/17/85		20	1598	62144	28	93	2042	35	40	ND	216	66000
1/22/87		TRACE	1618	89702	41	143	1920	30	48	ND	262	93502

RECOMMENDATION * COMMENTS
RETEST 1 YEAR * B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3390 MOWRY AVENUE, SUITE A, FREMONT, CA 94

0048

CUST. PENNWALT CORP CITY TACOMA WA ID # 30620000 DATE PRINTED 2/09/87

SUB. NAME CHLORINE RECT XFMR 3 UNIT # FEEDS CL2 RECT3 OTHER LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	WEST	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	7001019	IMPEDENCE	7.70%
KVA	16,870	PHASE/CYCLE	3/60
PRI	15,000	LIQUID TYPE	OIL
SEC	398	GAL LIQUID	2,000

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	YES	TAP CHANGER	NO
H20 COOLED	YES	BUSHING LOC	SIDE ENCLOSED
OIL PUMPS		RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	
BOTTOM FPV	2.00 IN	OTHER ACCESS	SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION GOOD LEAKS NONE

FIELD SERVICE

5/85 MAX LIFE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
5/03/85		1			1

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	20 C	0.7	.100	QU	25.0	UN	35	AC	3.00	AC	0.880	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	51 C	1.2	.100	QU	24.6	UN	50	AC	3.00	AC	0.880	AC	CLEAR	AC	NONE	AC
5/03/85					.030	AC	36.2	AC	50	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86					.040	AC	32.1	AC	44	AC	2.00	AC	0.885	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	27 C	0.0	.040	AC	30.8	QU	40	AC	3.00	AC	0.890	AC	CLEAR	AC	NONE	AC

COMMENTS N/N AND/OR IFT TEST INDICATES THE PRESENCE OF OXIDATION BY-PRODUCTS.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
12/29/82		48	3373	62830	66	70	2052	287	24	TRACE	495	68750
11/30/83		ND	6274	63325	54	50	1529	249	19	TRACE	372	71500
1/11/85		ND	5836	74632	17	9	1517	267	23	ND	316	82501
5/03/85		ND	3064	9429	ND	4	73	ND	ND	ND	4	12570
12/17/85		ND	2427	64997	TRACE	60	1650	5	5	ND	70	69144
1/22/87		ND	3032	82152	ND	2	65	ND	ND	ND	2	85251

RECOMMENDATION
RESAMPLE

* COMMENTS
* YC-THE DATA FROM THE ANALYSIS OF THIS SAMPLE DOES NOT COMPARE WELL WITH THE RESULTS OF OUR PREVIOUS ANALYSIS. IF
* THIS OIL HAS NOT BEEN TREATED SINCE OUR LAST ANALYSIS, WE ASSUME ONE OF THESE SETS OF DATA IS NOT REPRESENTIVE
* OF THE GASES IN THIS UNIT. HENCE, WE WILL FORWARD A CONTAINER FOR RESAMPLING FOR VERIFICATION.
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3390 NOWRY AVENUE, SUITE A, FREMONT, CA 945

040

CUST RENNWALT CORP CITY TACOMA WA ID # 30620000 DATE PRINTED 7/14/87
SUB. NAME CHLORINE RECT XFMR 3 UNIT # FEEDS CL2 RECT3 OTHER LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG. WEST		EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N 7001019		IMPEDENCE	7.70%
KVA	16,870	PHASE/CYCLE	3/60
PRI	15,000	LIQUID TYPE	OIL
SEC	398	GAL LIQUID	2,000

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	YES	TAP CHANGER	NO
H20 COOLED	YES	BUSHING LOC	SIDE ENCLOSED
OIL PUMPS		RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	400/30
BOTTOM FPV	2.00 IN	OTHER ACCESS	SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION GOOD LEAKS NONE

FIELD SERVICE

5/85 MAX LIFE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
5/03/85		1			1

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	20 C	0.7	.100	QU	25.0	UN	35	AC	3.00	AC	0.880	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	51 C	1.2	.100	QU	24.6	UN	50	AC	3.00	AC	0.880	AC	CLEAR	AC	NONE	AC
5/03/85					.030	AC	36.2	AC	50	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86					.040	AC	32.1	AC	44	AC	2.00	AC	0.885	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	27 C	0.0	.040	AC	30.8	QU	40	AC	3.00	AC	0.890	AC	CLEAR	AC	NONE	AC

COMMENTS N/N AND/OR IFT TEST INDICATES THE PRESENCE OF OXIDATION BY-PRODUCTS.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
12/29/82		48	3373	62830	66	70	2052	287	24	TRACE	495	68750
11/30/83		ND	6274	63325	54	50	1529	249	19	TRACE	372	71500
1/11/85		ND	5836	74832	17	9	1517	267	23	ND	316	82501
5/03/85		ND	3064	9429	ND	4	73	ND	ND	ND	4	12570
12/17/85		ND	2427	64997	TRACE	60	1650	5	5	ND	70	69144
1/22/87		ND	3032	82152	ND	2	65	ND	ND	ND	2	85251
6/25/87		ND	10844	68331	TRACE	10	420	TRACE	TRACE	ND	10	79605

RECOMMENDATION * COMMENTS
RETEST 1 YEAR * B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

ELFTSCA 00018

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.
3390 HOVRY AVENUE, SUITE A, FREMONT, CA 945

"E"

CUSTRENNWALT CORP
SUB. NAME GE REG. TX #5/6
CITY TACOMA WA
UNIT # MAIN SUB
OTHER
ID # 30620000
DATE PRINTED 7/14/87
LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	6906868	IMPEDENCE	2.62%
KVA	10,750	PHASE/CYCLE	3/60
PRI	13,800	LIQUID TYPE	OIL
SEC	13,800	GAL LIQUID	3,050

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	YES
FANS	NO	TAP CHANGER	YES
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	240/40
BOTTOM FPV	2.00 IN	OTHER ACCESS	SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION

LEAKS

FIELD SERVICE

3/87 NHOCS

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78					ND
3/13/87			38		38

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	29 C		.060	QU	24.3	UN	50	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	20 C	0.0	.060	QU	24.6	UN	50	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86					.060	QU	23.6	UN	42	AC	1.50	AC	0.875	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	12 C	0.0	.070	QU	22.2	UN	40	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
3/17/87					.030	AC	43.9	AC	46	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
12/21/81		ND	16054	60872	ND	TRACE	1074	ND	ND	ND	TRACE	78000
12/29/82		73	6404	57829	4	251	1435	3	1	ND	332	66000
11/30/83		31	9040	61138	TRACE	366	915	7	3	ND	407	71500
1/11/85		43	12952	65984	7	391	3113	5	5	ND	451	82500
2/04/86		52	14306	56492	1	326	2680	TRACE	TRACE	ND	379	73857
1/22/87		ND	21974	51609	5	3	252	3	10	ND	21	73856
6/25/87		TRACE	7554	22574	1	41	386	TRACE	TRACE	ND	42	30556

RECOMMENDATION
RETEST 1 YEAR

* COMMENTS
* B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOWRY AVENUE, SUITE A, FREMONT, CA 94

TC 0005

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 4/02/87
SUB. NAME STA 440 MAIN SUB | UNIT # SOUTH/N. BANK | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	2900338	IMPEDENCE	4.87%
KVA	500	PHASE/CYCLE	1/60
PRI	2,300	LIQUID TYPE	OIL
SEC	230	GAL LIQUID	547

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	240/40
BOTTOM FPV	1.00 IN	OTHER ACCESS	BREATHER

VISUAL INSPECTION

PAINT CONDITION

LEAKS

FIELD SERVICE

3/87 NHOCS

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78					ND
3/13/87			9		9

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		LOW			.040	AC	30.5	QU	45	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		LOW	0 C	0.0	.040	AC	31.2	QU	50	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86		LOW			.060	QU	29.0	QU	43	AC	2.50	AC	0.870	AC	CLEAR	AC	NONE	AC
1/22/87		LOW	17 C		.070	QU	28.3	QU	42	AC	2.50	AC	0.870	AC	CLEAR	AC	NONE	AC
3/17/87					.020	AC	44.8	AC	50	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/09/78		ND	24995	61194	TRACE	ND	436	ND	ND	ND	TRACE	86625
12/18/81		ND	32523	66261	3	ND	208	1	3	ND	7	98999
12/29/82		ND	25982	59059	5	ND	195	2	8	ND	15	85251
11/30/83		ND	26743	55518	7	1	213	5	12	ND	25	82499
1/11/85		ND	29415	60910	4	4	403	3	13	ND	24	90752
2/04/86		ND	28217	57783	7	TRACE	402	5	15	ND	27	86429
1/22/87		ND	30847	65042	7	6	332	3	14	ND	30	96251

RECOMMENDATION * COMMENTS
RETEST 1 YEAR * B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOWRY AVENUE, SUITE A, FREMONT, CA 9

TC 0006

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 4/02/87
SUB. NAME STA 440 MAIN SUB | UNIT # NORTH/S. BANK | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	C.E.	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	6485878	IMPEDENCE	5.02%
KVA	500	PHASE/CYCLE	1/60
PRI	13,800	LIQUID TYPE	OIL
SEC	240	GAL LIQUID	250

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	240/40
BOTTOM FPV	1.50 IN	OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION | LEAKS

FIELD SERVICE

3/87 NHOCS

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78					ND
3/13/87			12		12

COLOR LABEL GREEN | CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		S. LOW	42 C		.040	AC	33.0	AC	50	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		LOW	35 C	0.0	.040	AC	32.6	AC	49	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86		LOW			.040	AC	30.1	QU	43	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
1/22/87		LOW	17 C	0.0	.050	AC	28.6	QU	41	AC	2.50	AC	0.870	AC	CLEAR	AC	NONE	AC
3/17/87					.020	AC	42.8	AC	48	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/12/78		ND	24707	58415	ND	61	1432	ND	ND	ND	61	84615
12/21/81		ND	24015	55552	TRACE	ND	183	ND	ND	ND	TRACE	79750
12/29/82		ND	24678	57556	TRACE	TRACE	266	ND	TRACE	ND	TRACE	82500
11/30/83		ND	23162	56355	ND	9	221	3	TRACE	ND	12	79750
1/11/85		ND	28157	62235	TRACE	8	349	TRACE	1	TRACE	9	90750
2/04/86		ND	25757	55573	ND	TRACE	384	ND	TRACE	ND	TRACE	81714
1/22/87		ND	25671	52583	TRACE	10	308	ND	ND	ND	10	78572

RECOMMENDATION
RETEST 1 YEAR

* COMMENTS
* B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 HOWRY AVENUE, SUITE A, FREMONT, CA 94

TC 0008

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 4/02/87
SUB. NAME STA 440 MAIN SUB | UNIT # SOUTH/S. BANK | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	6485879	IMPEDENCE	5.02%
KVA	500	PHASE/CYCLE	1/60
PRI	13,800	LIQUID TYPE	OIL
SEC	240	GAL LIQUID	250

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	240/40
BOTTOM FPV	1.50 IN	OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION

LEAKS

FIELD SERVICE

3/87 NHOCS

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78					ND
3/13/87			24		24

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL	43 C		.070	QU	28.2	QU	47	AC	2.00	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		S/LOW	35 C	0.0	.060	QU	28.6	QU	50	AC	2.50	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86		LOW			.080	QU	26.2	UN	44	AC	2.50	AC	0.880	AC	CLEAR	AC	NONE	AC
1/22/87		LOW	15 C	0.0	.100	QU	25.7	UN	40	AC	2.50	AC	0.880	AC	CLEAR	AC	NONE	AC
3/17/87					.020	AC	43.9	AC	48	AC	1.50	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER LIQUID TEST DATA ACCEPTABLE IN ALL CATEGORIES.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/12/78		ND	22119	60061	TRACE	91	1676	ND	ND	ND	91	83947
12/18/81		ND	23109	56415	TRACE	14	207	ND	6	ND	20	79751
12/29/82		ND	23987	58104	TRACE	33	376	TRACE	TRACE	ND	33	82500
11/30/83		ND	20828	57244	ND	4	299	ND	1	ND	5	78376
1/11/85		ND	26018	65542	TRACE	42	522	ND	1	ND	43	92125
2/04/86		ND	26821	59200	ND	16	391	ND	ND	ND	16	86428
1/22/87		ND	26387	53234	TRACE	28	495	ND	TRACE	ND	28	80144

RECOMMENDATION
RETEST 1 YEAR

* COMMENTS
* B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 NOWRY AVENUE, SUITE A, FREMONT, CA 94

0009

CUST. PENNWALT CORP
SUB. NAME GE RECT TX #1
CITY TACOMA WA
UNIT # FEEDS RECT #1
OTHER
ID # 30620000
LOCATION OUTDOOR/GROUND
DATE PRINTED 2/09/87

NAMEPLATE DATA

MFG. G.E.
DATE MFG.
S/N 6906855
KVA 4,500
PRI 13,800
SEC 367

EQUIP. TYPE RECTIFIER
TRANS CLASS
IMPEDENCE 7.57%
PHASE/CYCLE 3/60
LIQUID TYPE OIL
GAL LIQUID 2,725

ADDITIONAL EQUIPMENT

RADIATORS YES
FANS NO
H20 COOLED NO
OIL PUMPS NO
TOP FPV
BOTTOM FPV 2.00 IN

CONSERVATOR 075 GALLONS
TAP CHANGER NO
BUSHING LOC TOP & SIDE
RECLAIMER 50 FEET
POWER V/A
OTHER ACCESS SAMPLE VALVE

VISUAL INSPECTION

PAINT CONDITION FAIR
LEAKS YES/RADIATORS & BUS BX

FIELD SERVICE

8/79 RE-REFINE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78			7		7

COLOR LABEL GREEN
CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL			.040	AC	34.0	AC	50	AC	0.75	AC	0.870	AC	CLEAR	AC	NONE	AC
1/11/85		NORMAL	84 C	0.0	.030	AC	35.2	AC	47	AC	0.75	AC	0.870	AC	CLEAR	AC	NONE	AC
2/04/86					.030	AC	34.2	AC	44	AC	0.75	AC	0.870	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	12 C	0.0	.030	AC	33.8	AC	45	AC	1.00	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER OIL TEST DATA ACCEPTABLE, HOWEVER STUDIES INDICATE OXIDATION BY-PRODUCTS TRAPPED IN INSULATION.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/12/78		ND	22613	61490	ND	116	1031	ND	ND	ND	116	85250
12/21/81		ND	23874	55204	TRACE	107	692	ND	ND	ND	107	79877
12/29/82		16	20192	58612	7	188	722	2	12	ND	225	79751
11/30/83		ND	20220	57352	2	227	1933	3	13	TRACE	245	79750
1/11/85		ND	26181	62174	TRACE	200	2188	1	5	ND	206	90749
2/04/86		ND	24891	58210	1	142	1612	TRACE	1	ND	144	84857
1/22/87		ND	20857	49934	2	186	1894	1	1	ND	190	72875

RECOMMENDATION
RETEST 1 YEAR

COMMENTS
B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

3890 MOWRY AVENUE, SUITE A, FREMONT, CA 94

0010

CUST. PENNWALT CORP | CITY TACOMA WA | ID # 30620000 | DATE PRINTED 2/09/87
SUB. NAME GE RECT TX #2 | UNIT # FEEDS RECT #2 | OTHER | LOCATION OUTDOOR/GROUND

NAMEPLATE DATA

MFG.	G.E.	EQUIP. TYPE	RECTIFIER
DATE MFG.		TRANS CLASS	
S/N	6906859	IMPEDENCE	7.60%
KVA	4,500	PHASE/CYCLE	3/60
PRI	13,800	LIQUID TYPE	OIL
SEC	367	GAL LIQUID	2,725

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	100 GALLONS
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	50 FEET
TOP FPV	1.00 IN	POWER V/A	
BOTTOM FPV	2.00 IN	OTHER ACCESS	

VISUAL INSPECTION

PAINT CONDITION FAIR LEAKS NONE

FIELD SERVICE

8/79 RE-REFINE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	OTHER	TOTAL CONTENT
9/07/78			8		8

COLOR LABEL GREEN CLASS NON-PCB

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP. GR.		VISUAL		SEDIMENT	
11/22/83		NORMAL			.030	AC	34.9	AC	50	AC	0.75	AC	0.880	AC	CLEAR	AC	NONE	AC
1/11/85		LOW	30 C	0.0	.030	AC	35.6	AC	49	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC
2/04/86		LOW			.030	AC	34.1	AC	43	AC	0.75	AC	0.875	AC	CLEAR	AC	NONE	AC
1/22/87		NORMAL	11 C	0.0	.030	AC	34.2	AC	48	AC	1.00	AC	0.880	AC	CLEAR	AC	NONE	AC

COMMENTS TRANSFORMER OIL TEST DATA ACCEPTABLE, HOWEVER STUDIES INDICATE OXIDATION BY-PRODUCTS TRAPPED IN INSULATION.

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS
9/11/78		ND	31292	97715	ND	166	1637	ND	ND	ND	166	130810
12/21/81		ND	21529	60273	TRACE	33	665	ND	TRACE	ND	33	82500
12/29/82		ND	20672	50410	1	16	401	ND	TRACE	ND	17	71500
11/30/83		ND	24644	62399	ND	155	798	1	3	ND	159	88000
1/11/85		TRACE	24027	67220	TRACE	142	1680	TRACE	7	TRACE	149	93076
12/17/85		ND	25395	57684	TRACE	177	1990	1	3	ND	181	85250
1/22/87		TRACE	23514	56193	2	190	1893	1	1	ND	194	81794

RECOMMENDATION
RETEST 1 YEAR

* COMMENTS
* B-THE ANALYSIS OF THIS SAMPLE SHOWS NO SIGNIFICANT INCREASE IN THE COMBUSTIBLE GAS VOLUME.
*
*
*

KEY TO ABBREVIATIONS: AC — ACCEPTABLE OU — QUESTIONABLE UN — UNACCEPTABLE

PENNWALT
CORPORATION
CHEMICALS ■ EQUIPMENT ■ HEALTH PRODUCTS

DEAN E. WERTH
Plant Engineer

INORGANIC CHEMICALS DIVISION
2901 TAYLOR WAY, TACOMA, WA 98421
P.O. BOX 1297, TACOMA, WA 98401
(206) 627-9101

PENNWALT
CORPORATION
CHEMICALS ■ EQUIPMENT ■ HEALTH PRODUCTS

VAN L. RHODES
Electrical Supervisor

INORGANIC CHEMICALS
2901 TAYLOR WAY, TACOMA, WA 98421
(206) 627-9101

PENNWALT
CORPORATION
CHEMICALS ■ EQUIPMENT ■ HEALTH PRODUCTS

PAUL E. EDQUIST, P.E.
Manager of Environmental Affairs
& Special Projects

INORGANIC CHEMICALS DIVISION
2901 TAYLOR WAY, TACOMA, WA 98421
P.O. BOX 1297, TACOMA, WA 98401
(206) 627-9101

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JAN 29 1988

REPLY TO ATTN OF: M/S AT-093

Orval J. High, Plant Manager
Pennwalt Corporation
2901 Taylor Way
Tacoma, Washington 98421

Dear Mr. High:

On December 14, 1987, an inspection of Pennwalt Corporation, Tacoma, Washington, was conducted by W. Douglas Smith of the United States Environmental Protection Agency (EPA) pursuant to Section 11 of the Toxic Substances Control Act (TSCA). This inspection was performed to determine if the facility was in compliance with EPA regulations governing polychlorinated biphenyls (PCBs) (40 C.F.R. § 761, et seq. (1987)).

Our review of the inspection report did not reveal any apparent violations of the regulations. Because your facility does not appear to have had PCBs in the amount prescribed in 40 C.F.R. §761.180(a), it does not appear that you have been required to maintain PCB Annual Documents, at least from 1985 until the present.

We do have one concern that you should address to ensure compliance with the PCB Regulations. I understand that Mr. Smith pointed out during his inspection that transformers 12 and 46 may have been leaking for some time, possibly prior to Transformer Consultants' dechlorination of these units. You should take representative samples from the area to determine if contamination has occurred and if cleanup is required.

If you have any questions regarding this inspection or the PCB Regulations, please contact William M. Hedgebeth of my staff. He can be reached at EPA Region 10, 1200 Sixth Avenue, M/S AT-093, Seattle, Washington, telephone (206) 442-7369.

Sincerely,

Gil Haselberger, Chief
Toxic Substances Section

VIOLATION ASSESSMENT

William M. Hedgebeth/EPS
(Name & title of Evaluator)
1-28-88

TSCA	X	(PCB)
FIFRA		

PENNWALT CORPORATION
2901 Taylor Way
Tacoma, Washington 98421

ACTION TAKEN	
X	No Action Indicated
	Notice Noncompliance
	Refer for Ad. Civil Penalty
	Refer for Criminal Penalty
	Refer to State

December 14, 1987
Date of Inspection

W. Douglas Smith/ATD
Name of Inspector

Comments:

No previous EPA TSCA (PCB) enforcement activity at this facility.

Facility currently has not PCB Transformers, PCB-contaminated transformers, or PCB Capacitors.

PCB Capacitors were all disposed of within the last two years (24 PCB Capacitors). In 1985, facility had 3 PCB-contaminated transformers. One was disposed of, two were dechlorinated by Transformer Consultants. Follow-up testing verified reclassification.

Advise PCB Annual Documents not required (question arose during inspection whether or not they were required)

Two transformers that were dechlorinated appeared to have been leaking for a while. Unknown whether they were leaking prior to dechlorination. Advise facility to take representative samples to determine whether contamination had occurred.

Recommend No Violation closure letter with above advisory items.

1/28/88
Concur

Do not Concur

FATES INSPECTION # _____ DATE ENTERED _____

CASE # _____ DATE ENTERED _____

FMES 1-28-88

INSPECTION REPORT - TSCA PCB

REPORT DATE: 12-15-87

FACILITY:

(mailing address)

Pennwalt Corp
2901 Taylor Way
Tacoma, WA 98421

(site address)

SAME

INVESTIGATOR:

W. Douglas Smith, EPA

INSPECTION COMMENCED:

12-14-87 @ 1300 hours

BACKGROUND:

The Pennwalt Corp. is an industrial agricultural chemical producer. The facility is located at 2901 Taylor Way, Tacoma, WA 98421. They are situated adjacent to a waterway in a highly industrial area of southern Puget Sound known as the Tacoma Tide Flats.

PREVIOUS COMPLIANCE:

The Pennwalt Corp. has been the focus of EPA investigation under RCRA, TSCA, and Superfund because of contamination of the adjacent waterway. There are files in existence in the Air, Water, Toxics, and CERCLA programs within EPA Region 10.

INTRODUCTION AND RECORDS INSPECTION (Time: 1300 hours)

I introduced myself to the receptionist for the facility at 1300 hours. I had called 35 minutes earlier to coordinate the inspection with appropriate plant personnel. After a brief wait, I was introduced to Dean Werth, Plant Engineer. I was subsequently introduced to Paul Edquist, Environmental Affairs and Special Projects Manager; Van Rhodes, Electrical Supervisor; and Orval J. High, Plant Manager. Mr. Edquist, and Mr. Rhodes stayed with me to assist in the inspection. Credentials and Notices of Inspection and Confidentiality were given to Paul Edquist. I then requested information regarding any liquid filled equipment which might contain PCBs. Mr. Edquist stated that they did not have any heavy hydraulic equipment, or liquid filled heat transfer equipment which might have PCBs, but they did have a number of transformers and used to have capacitors which had PCBs. I asked them if they had a PCB Annual Report and an inventory of that equipment. Mr. Edquist stated that they did not have PCB Annual Reports, but did have an inventory. I was shown a file which contained information regarding all PCB and PCB contaminated equipment. I was told by Mr.

Rhodes that several banks of capacitors had been changed out in the past year or two. He stated that 24 capacitors had been removed and sent for PCB disposal. I was shown the manifest (Manifest Document Number AR-80639, Attachment B). I was also shown a 1985 inventory of Transformers (Attachment A) which listed 13 units with concentrations from 4 ppm PCBs to 318 ppm PCBs. I inquired about the unit with 318 ppm. Mr. Rhodes said that it had been in storage longer than he had been employed at the facility. Mr. Rhodes said that he had been employed there for over 9.5 years. I asked if the unit had been intended to be stored for disposal. He said that he didn't know, but that the unit was in good serviceable condition, and could have been used if needed. He further stated that the transformer with 318 ppm PCBs was not leaking up to and including the time of its disposal which was documented on document manifest no. 20622 (Attachment C). I was also shown a manifest document no. PG-003-7 which showed another shipment of PCB waste, and liquids generated by S.D. Myers, Inc, P.O. Box 4724, Akron, Oh. 44310 (216) 929-2847. This document (Attachment D) was dated 6-10-87. It establishes that there were liquid PCB materials at the site immediately prior to that time PCB Annual Reports, documenting the shipment or record of these materials was not available.

All liquid filled electrical equipment at the facility was sampled by Transformer Consultants, a division of S.D. Meyers, Inc. Analytical results for all equipment was available and shown to me. Sampling was performed, and analysis completed for all PCB contaminated equipment between the dates of 2-9-87, and 8-26-87. I requested and was given copies for all reports for equipment which indicated PCBs in excess of 1 ppm. I was given 13 report sheets (Attachment E-multiple documents).

FIELD INSPECTION

I was accompanied into the field by both Mr. Edquist, and Mr. Rhodes. We visited every pad mounted transformer in their service. They require enormous amounts of electrical power and there were a number of units which were rated at over 10,000 KVA. None of the transformers indicated breaches of containment except units 12 and 46. Unit 46 had been 124 ppm PCBs until 5-29-87, when it underwent the Transformer Consultants PCB-Gone process. It was leaking at the time of this inspection, and had sorbent pads spread around its base. (Photo Nos. 1-14) Unit 12 was an ITE transformer located in the Sub Cell Rm. It had been 175 ppm PCBs prior to the PCB-Gone decontamination procedure. After the process a further analysis indicated in a concentration of 23 ppm PCBs. (Photo Nos. 1-14) An employee was in the process of changing the pads while we observed transformers 12 and 46.

We visited a transformer pen with several banks of capacitors. All of the capacitors were marked with blue "No PCB" labels. I asked if there were any more capacitors at the facility which had not been changed out to non-PCB units. Mr. Rhodes said that there were not.

I asked if there was a Storage for Disposal site. Mr. Edquist said that there was none, and that they never kept PCB or PCB-contaminated material or equipment more than a few days after it was taken from service. He emphasized that Transformer Consultants usually handled such equipment, and removal was usually very rapid.

POST INSPECTION DEBRIEFING:

Debriefing was with Mr. Edquist, and Mr. Rhodes. I suggested that it appeared that they no longer had any PCB transformers or capacitors at their facility. I also said that they had done a thorough job of documenting the sampling and removal of the equipment, however, I stated that the regulations usually required that all of the inventory, storage, and removal records be kept in a single PCB Annual Report document. I said that I did not know what the decision of a case reviewer might be in regard to the required reporting procedure.

In addition, I suggested that the transformers 12 and 46 appear to have been leaking for some time. Mr. Rhodes confirmed this. I then stated that there might be

TLFTSCA 00029

contamination of the pad or earth under the transformers. The contamination would be of the higher concentrations of PCBs contained in the units prior to the PCB-Gone process. We discussed the prudence of sampling the area, and why it would be a good idea to know if contamination had taken place. They said that they could do the sampling, but gave no direct indication that they would on a voluntary basis.

SAMPLING:

None

POSSIBLE VIOLATIONS:

A. Records
B. Disposal (from leaks which took place prior to the PCB-Gone process.)

SAFETY CONSIDERATIONS:

This is a toxic chemical manufacturing facility. There are extensive amounts of CL_2 at the facility. Protection of eyes, mucosa, skin, and the respiratory system are a must. Hard hats are required. There are several wind socks on poles to indicate wind direction in case of a spill or leak of toxic gasses. I was issued a cartridge respirator for emergency evacuation purposes only.

ATTACHMENTS:

1. Notices
2. Notebook
3. Photographs

1/13/88
DATE

W. Douglas Smith, Senior Compliance Investigator

DOCUMENT SUMMARY

Document Id:	2159k
Document Name:	Report/Pennwalt Corp.
Operator:	W. D. Smith
Author:	W. D. Smith
Comments:	TSCA Insp.

STATISTICS

OPERATION	DATE	TIME	WORKTIME	KEYSTROKES
Created	12/15/87	10:53	3:16	8173
Last Revised	12/22/87	08:33	:04	2
Last Printed	01/13/88	15:04		
Last Archived	/ /	:	onto Diskette	

Total Pages:	1	Total Worktime:	3:33
Total Lines:	144	Total Keystrokes:	8443

Pages to be printed 1

Notify U08 on system ubeel.

"A"

M 1025

PENNWALT CORPORATION

SUBJECT PCB CONTAMINATED TRANSFORMERS

DATE October 25, 1985

TO Mr. Orval J. High

FROM V. L. Rhodes

IN RE

COPIES TO E18

The following transformers are contaminated with the specified amount:

Transformer	Gallons of Oil	PCB Content	Service
6	250	30	Outdoor Transformer
7	250	6	" "
9	2725	7	" "
10	2725	8	" "
11	3050	4	" "
12	224	175	" "
18	600	124	Not In Service (TX) >9 years
19	285	318	" " " "
35	1225	13	Outdoor Transformer
42	76	4	Oil Circuit Breaker
43	60	9	" " "
44	400	16	Tap Changer
48	2000 est.	8	Outdoor Transformer

VLR:ps

SOUND ANALYTICAL SERVICES, INC.

ANALYTICAL & ENVIRONMENTAL CHEMISTS
4615 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 · TELEPHONE (206)922-2310 · FAX (206)922-5047

Report To: Westinghouse Electric Date: February 13, 1995

Report On: PCB in Oil Lab No.: 46340

IDENTIFICATION:
Samples Received on 02-10-95
Project: REP/Alto Chem

ANALYSIS:

PCB Per EPA-600/4-81-045

Laboratory Sample No.	Client Identification	PCB Type	Result, mg/kg
46340-1	West. Reg. Main Tank	1254	8.3
46340-2	West. Reg. Tap Changer	---	< 1
46340-3	Rect. Tx	1254	1.9
46340-4	1-7001005	1260	1.6
46340-5	Ferrant. Packard	---	< 1

ELFTSCA 00035

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.

elf atochem
ATO

Elf Atochem North America, Inc.
P.O. Box 1297, Tacoma, Washington 98401
Phone: (206) 627-9101, Fax (206) 627-0554

RECEIVED
MAR 9 1995

Michael W. Mattox
Operations/Safety Manager
Elf Atochem, NA
2901 Taylor Way
Tacoma, WA 98421

March 8, 1995

Mr. Bill Hedgebeth
EPA Region 10
1200 6th Avenue
Mailstop AT-083
Seattle, WA 98101

Dear Mr Hedgebeth,

Per our discussion today, the following details concern the transformer and transformer insulating oil shipments that we anticipate making later in March.

The equipment being shipped is part of a package sale that my company, Elf Atochem, NA, made to Shiraram Industrial Enterprises Limited, an Indian Company. The overall sale includes a 250 TPD Membrane Technology chlorine plant and various support facilities. Included in these are nine rectifier/transformer units that contain the insulating oil. This oil has been tested (results enclosed) and has been demonstrated to contain a maximum of 8.3 ppm PCB's in the case of one transformer. A majority of the samples tested at <1 ppm PCB's. In order to facilitate packaging and shipping of the units, it is necessary to remove the insulating oil and ship it separately in DOT approved drums. This is necessary to protect the transformer cores from mechanical damage due to the rocking motion of the ship in transit. Upon arrival and re-installation in India, the transformers will be refilled with the same oil that was removed from them on a unit by unit basis.

The shipping line that will be accepting this material has requested that we provide assurances that this material can be legally shipped internationally. In addition, it would be helpful if the specific 40 CFR reference could be cited that allows (or doesn't prohibit) shipment of this material could be given.

Your assistance in this matter will be greatly appreciated. In order to expedite your response, my fax number is (206)627-0554, or you can call me at (206)596-6825.

Again, thank you for your assistance thus far and for any further light you can shed on this.

Sincerely,

Michael W. Mattox
Operations/Safety Manager

Enclosure

cc: Mr. H. K. Gupta (Shiraram)
Mr. Warren Fisk (Atochem)

ELF - Atochem North America

Oil - Filled Equipment Listing

Version	26-Oct-94											
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	XFMR FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
1T	F957729	IN-SERVICE	G	Alley Behind Storeroom & Shop	Chlorate	1500	215	6.6	11/19/90	0.0048	CG	
2T	8111527	DISPOSED		DISPOSED 5/23/89		800	346	100%				
3AT	66G15079-W	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.000256
3BT	66G3296-C	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.0007
3CT	66G15078-E	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.000256
4AT	782017445-W	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
4BT	782017447-C	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
4CT	782017449-E	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
5XT	6906867	DISPOSED	Y	DISPOSED 8/26/93		4500	510	87	6/28/93	0.1511		
6T	C861396	STORAGE	G	W of Storeroom & Shop	Spare 750 KVA XFMR 11500/480	750	340	24	11/21/90	0.0278	NC	0.027785
7T	8111526	DISPOSED		DISPOSED 5/23/89		1000	431	100%				
8T	N239947TKUA	IN-SERVICE	B	NW Motor Truck Scale	Plant Air	500	100	<1.0	11/19/90	0.0000	NC	0
9R	AB69109T1	IN-SERVICE		E of Chlorate Cell Room	Chlorate Bay B & C	32460	?	ND	6/28/93		CS	
9OCBA	265841A	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9OCBB	265841B	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9OCBC	265841C	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9CAP	136Y3266	IN-SERVICE		E of Chlorate Cell Room	Cap bank in Chlorate XFMR Yard	600A	?	ND	6/28/93	0.0000	CS	
10T	5393235	DISPOSED		DISPOSED 2/83		500	290	100%				
11R	ZAS79451	NOT OPER	B	E of Chlorate Cell Room	Chlorate D & E	18225	5595	7.8	11/21/90	0.1486	CS	
11X	51971	NOT OPER		E of Chlorate Cell Room	Auto XFMR	20000	?	ND	6/28/93		CS	
11OCB	4153781101	NOT OPER	B	E of Chlorate Cell Room	Serves 11R	1200A	74	ND	4/18/86	0.0000	CS	
11AT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	ND	4/24/95		CS	
11BT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	ND	4/24/95		CS	
11CT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	ND	4/24/95		CS	
12B	B501904	DISPOSED	B	DISPOSED 8/25/93		750	885	<1.0	11/21/90	0.0000		
12X	B682310	DISPOSED	G	DISPOSED 8/25/93		8090	1260	10	4/3/92	0.0429		

ELF - Atochem North America

Oil - Filled Equipment Listing

Version	26-Oct-94											
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	XFMR FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
12R	7083355	DISPOSED		DISPOSED 10/3/1988		7500	4080	45	1988			
12TC	B501904LTC	DISPOSED	G	DISPOSED 8/25/93		—	165	7	4/3/92	0.0039		
13SA	D320924	DISPOSED	Y	DISPOSED 10/21/94		390	605	100	3/11/92	0.2060	CS	
13RA	6538964	DISPOSED	Y	DISPOSED 10/21/94		3870	1422	73	3/11/92	0.3535	CS	
S13B	D320925	DISPOSED	B	DISPOSED 10/21/94		390	605	<1.0	3/11/92	0.0000	CS	
R13B	6538966	DISPOSED	B	DISPOSED 10/21/94		3870	1422	1	3/11/92	0.0048	CS	
13OCB	S036Y1480	NOT OPER	B		Serves 13 A&B	600A	45	<1.0	11/20/90	0.0000	CS	
15S	6995003	DISPOSED	G	DISPOSED 10/21/94		7592	2882	10	11/21/90	0.0981	CS	
15R	6994991	DISPOSED	G	DISPOSED 10/21/94		7592	2437	27	11/21/90	0.2240	CS	
15TC	6995003LTC	DISPOSED	B	DISPOSED 10/21/94		—	157	<1.0	11/19/90	0.0000	CS	
16T	B364866	IN-SERVICE	Y	N.E. of track 4A	Orthosil/Cl2 stor. tks MCC/WHouse #2	1500	485	4	3/17/95		CS	
17T	C863845	STORAGE	G	W of Storeroom & Shop	Spare	1000	435	6	4/3/92	0.0089	NC	0.008887
18T	6934427	IN-SERVICE	G	SE Corner of NH3 Plt	Nitrogen Plant - Air Comp.	1000	404	3	4/3/92	0.0041	CS	
19T	G855845	STORAGE	G	W of Storeroom & Shop	Spare	1000	215	9.6	11/21/90	0.0070	NC	0.007026
20T	7375551	STORAGE	G	W of Storeroom & Shop	Spare: REPAIR	1000	445	2	11/21/90	0.0030	NC	0.00303
21S	C0134451	IN-SERVICE	G	W of Chlorine Cell Room	Regulating XFMR	8930	820	2.2	11/19/90	0.0061	CG	
21R	9622	IN-SERVICE	G	W of Chlorine Cell Room	Rectifier XFMR	8122	2800	23	11/21/90	0.2193	CG	
21LTC	C0134451LTC	IN-SERVICE	B	W of Chlorine Cell Room	21S load tap changer	—	95	<1.0	11/19/90	0.0000	CG	
22S	C0270451	IN-SERVICE	Y	W of Chlorine Cell Room	Regulating XFMR; Reclassify	8700	795	3	6/28/93	0.0061	CG	
22R	14188	IN-SERVICE	G	W of Chlorine Cell Room	Rectifier XFMR	8643	2800	6.1	11/19/90	0.0582	CG	
22LTC	C0270451LTC	IN-SERVICE	B	W of Chlorine Cell Room	22S load tap changer	—	95	<1.0	11/19/90	0.0000	CG	
21-22X	L481299	IN-SERVICE	B	W of Chlorine Cell Room	Auto XFMR	15453	825	<1.0	11/19/90	0.0000	CG	
23R	H409842	IN-SERVICE	B	W of Chlorine Cell Room	Combined Rect. & Reg.	22000	9000	<1.0	11/19/90	0.0000	CG	
23TC	H409842LTC	IN-SERVICE	B	W of Chlorine Cell Room	23R load tap changer	—	500	<1.0	11/19/90	0.0000	CG	
23X	L481300	IN-SERVICE	B	W of Chlorine Cell Room	Auto XFMR	15453	825	<1.0	11/21/90	0.0000	CG	
23OCB	0442A5409101	IN-SERVICE	B	W of Chlorine Cell Room	Serves 23R	1200A	70	<1.0	11/19/90	0.0000	CG	
24R	AC69290T1	IN-SERVICE	G	W of Chlorine Cell Room	Rectifier XFMR	21000	7470	1.0	3/6/87	0.0509	CG	

ELF - Atochem North America

Oil - Filled Equipment Listing

Version	26-Oct-94											
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	XFMR FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
24TC	AC69290T1LTC	IN-SERVICE		W of Chlorine Cell Room	24R load tap changer: Compartment	—	?	2.0	11/19/90		CG	
24OCB	?	DISPOSED		DISPOSED 91		?	70	1.0	11/19/90			
24OCBA	285454A	IN-SERVICE		W of Chlorine Cell Room	Serves 24R	2000A	73	ND	6/28/93		CG	
24OCBB	285454B	IN-SERVICE		W of Chlorine Cell Room	Serves 24R	2000A	73	ND	6/28/93		CG	
24OCBC	285454C	IN-SERVICE		W of Chlorine Cell Room	Serves 24R	2000A	73	[ ]			CG	
25R	AZ69172T1	IN-SERVICE	B	W of Chlorine Cell Room	Rectifier XFMR	18710	6340	ND	3/6/87	0.0000	CG	
25TC	AZ69172T1LTC	IN-SERVICE		W of Chlorine Cell Room	25R LTC (Diverter Switch?)	—	18.5	<1.0	11/19/90		CG	
25OCB	41107581011	IN-SERVICE	B	W of Chlorine Cell Room	Serves 25R	1200A	90	ND	6/28/93	0.0000	CG	
26R	AN69106T1	IN-SERVICE	B	W of Chlorine Cell Room	Rectifier XFMR Bays	38560	6340	<1.0	11/20/90	0.0000	CG	
26OCBA	237Y6390A	IN-SERVICE	B	W of Chlorine Cell Room	Serves 26R	3000A	55	<1.0	11/19/90	0.0000	CG	
26OCBB	237Y6390B	IN-SERVICE	B	W of Chlorine Cell Room	Serves 26R	3000A	55	<1.0	11/19/90	0.0000	CG	
26OCBC	237Y6390C	IN-SERVICE	B	W of Chlorine Cell Room	Serves 26R	3000A	55	<1.0	11/19/90	0.0000	CG	
39T	4036011	IN-SERVICE		DOCK #2	(Air cooled); Cast coil	500	NA	NA	NA		NA	
40T	C863005	STORAGE	Y	W of Storeroom & Shop	Spare-Retrofilled 8/22/94	1000	350	59	11/21/90	0.0703	NC	0.070313
41T	2598802	DISPOSED		DISPOSED 5/1991		750	405	16	6/24/81			
42T	C861418	DISPOSED		DISPOSED 4/22/83		600	335	100%	?			
43T	59SG175	DISPOSED	B	DISPOSED 10/21/94		30	39	<1.0	3/11/92	0.0000	CS	
44T	5S3168	IN-SERVICE		W of Cl2 Cell Room; Inside 21-22 ACB	Control XFMR	30	22	ND	3/17/95		CG	
45T	3010239	DISPOSED		DISPOSED 2/1993		100	30	100%	?			
46T	PDT03580101	IN-SERVICE	B	Inside E-Set Caustic Evap. Unit	Caustic Evaps E-SET	1500	231	<1.0	11/19/90	0.0000	CG	
47T	PDT03580102	IN-SERVICE	B	Inside E-Set Caustic Evap. Unit	Caustic Evaps E-SET	1500	231	<1.0	11/19/90	0.0000	CG	
48T	SBV87040101	IN-SERVICE	B	E of Cl2 Finish, Near By-Gas Tank	Cl2 Finishing Motor Power	1500	200	<1.0	11/20/90	0.0000	CG	
49T	89V5701	IN-SERVICE	B	E of Cl2 Finish, Near By-Gas Tank	York Cl2 Comp	1500	620	<1.0	11/20/90	0.0000	CG	
50T	SBV87030101	IN-SERVICE	B	S of Cell Repair	Elliott Cl2 Comp	1000	165	<1.0	11/20/90	0.0000	CG	
51T	L243735	IN-SERVICE	B	S of Cell Repair	Chlorine Cell Repair	1500	192	<1.0	11/21/90	0.0000	CG	
52AT	909913	IN-SERVICE	B	S Track 1 / Along Fence at Shore: Sou	Dock 1 River Cooling Water	250	52	5.0	6/95		CS	
52BT	909911	IN-SERVICE	B	S Track 1 / Along Fence at Shore: Cen	Dock 1 River Cooling Water	250	52	7.0	6/95		CS	

ELF - Atochem North America

Oil - Filled Equipment Listing

Version	26-Oct-94											
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	XFMR FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
52CT	909912	IN-SERVICE	B	S Track 1 / Along Fence at Shore: Nort	Dock 1 River Cooling Water	250	52	7.0	6/95		CS	
54T	89V5698	IN-SERVICE	B	W of Operations Office	Chlorate Process	1500	420	<1.0	11/21/90	0.0000	CS	
55T	89V5697	IN-SERVICE	B	E of Chlorate Cell Room	Boiler Room, Carrier	1500	420	<1.0	11/21/90	0.0000	CS	
55OCB	N75H114ESC	IN-SERVICE	B	E of Chlorate Cell Room	Serves 55T	600A	50	1.7	11/19/90	0.0003	CS	
56T	89V5699	IN-SERVICE	B	W of Chlorine Cell Room	Motor Power Cl2 Plant	1500	420	<1.0	11/19/90	0.0000	CG	
57T	89V5700	IN-SERVICE	B	S of Compressor Room	Motor Power Cl2 Plant / Brine	2000	629	<1.0	11/20/90	0.0000	CS	
58T	09L80A1002C	IN-SERVICE	B	E of Chlorate Cell Room	Cooling tower, ClO3 process	2000	766	<1.0	11/21/90	0.0000	CS	
58OCB	75C128ESC	IN-SERVICE	B	E of Chlorate Cell Room	Serves 58T	600A	50	1.2	11/19/90	0.0002	CS	
61OCBA	6351004CA1A	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	3.9	11/19/90	0.0007	CS	
61OCBB	6351004CA1B	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	< 1.0	11/21/90	0.0000	CS	
61OCBC	6351004CA1C	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	< 1.0	11/19/90	0.0000	CS	
62OCBA	318523A	IN-SERVICE	B	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	2.9	4/16/91	0.0007	NC	0.000721
62OCBB	318523B	IN-SERVICE	G	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	< 2.0	4/16/91	0.0000	NC	0
62OCBC	318523C	IN-SERVICE	G	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	2.3	4/16/91	0.0006	NC	0.000572
63OCB	0442A6737110	IN-SERVICE	G	S of BPA Substation Annex	N. CAP Bank	1120A	70	5.7	11/21/90	0.0014	NC	0.001359
Q01S	C658763	DISPOSED	G	DISPOSED 8/25/93		5238	605	13	4/3/92	0.0268		
Q01LTC	C658763LTC	DISPOSED	G	DISPOSED 8/26/93		—	180	11	4/3/92	0.0067		
QO2R	C658764	DISPOSED	G	DISPOSED 8/25/93		4989	3000	2	4/3/92	0.0204		
Q03S	B314398	DISPOSED	B	DISPOSED 10/21/94		4300	1635	1	3/11/92	0.0056	CS	
Q03LTC	B314398LTC	DISPOSED	B	DISPOSED 10/21/94		—	165	<1.0	3/11/92	0.0000	CS	
Q04R	B314399	DISPOSED	G	DISPOSED 8/25/93		4300	2725	3	4/3/92	0.0278		
Q05T	6906865	DISPOSED	G	DISPOSED 8/5/93		4500	510	5	6/28/93	0.0087		
Q06	F962331	DISPOSED		DISPOSED 86		1000	195	602	86			
	73991S	DISPOSED	G	DISPOSED 8/25/93		100	100	2	6/28/93	0.0007		
	73991T	DISPOSED	G	DISPOSED 8/25/93		100	100	1.0	6/28/93	0.0000		
	4010062	DISPOSED		DISPOSED	Warehouse 2/Rexselen Rect	?	1.5	301	6/8/89			
	4010061	DISPOSED		DISPOSED	Warehouse 2/Rexselen Rect	?	1.5	309	6/8/89			

ELF ATOCHEM N.A.
6400 N.W. FRONT AVENUE
PORTLAND, OR
EPA ID NO. 009031840

1994
ANNUAL PCB LOG

RECEIVED
NOV 12 1996
"SWAT Unit"
"OWCM"

PLANT NUMBER	SERIAL NUMBER	STATUS	DATE TESTED AND PPM PCB	DATE REMOVED FROM SERVICE	DATE PLACED IN STORAGE	DATE PLACED IN TRANSPORT	MANIFEST NO.	LOCATION OF STORAGE/DISPOSAL	REMARKS	FINAL DISPOSAL DATE
13SA	D320924	XFMR Core Recycled	3-11-92 100 ppm	-	-	10-21-94	94068	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	100 ppm	-	-	8-16-94	3239-1	Aptus, Inc. Aragonite, UT	Incinerated	10-04-94
13RA	6538984	XFMR Core Recycled	3-11-92 73 ppm	-	-	10-21-94	94069	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	73 ppm	-	-	8-16-94	3239-1	Aptus, Inc. Aragonite, UT	Incinerated	10-04-94
S13B	D320925	XFMR Core Recycled	3-11-92 <1 ppm	-	-	10-21-94	94068	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	<1 ppm	-	-	8-16-94	3239-1	Aptus, Inc. Aragonite, UT	Incinerated	10-04-94
R13B	6538986	XFMR Core Recycled	3-11-92 1 ppm	-	-	10-21-94	94067	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	1 ppm	-	-	8-16-94	3239-1	Aptus, Inc. Aragonite, UT	Incinerated	10-04-94
15S	6995003	XFMR Core Recycled	11-21-90 10 ppm	-	-	10-21-94	94065	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	10 ppm	-	-	8-16-94	23239	Aptus, Inc. Aragonite, UT	Incinerated	10-05-94
15R	6994991	XFMR Core Recycled	11-21-90 27 ppm	-	-	10-21-94	94066	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	27 ppm	-	-	8-16-94	23239	Aptus, Inc. Aragonite, UT	Incinerated	10-05-94
15TC	6995003 LTC	XFMR Core Recycled	11-19-90 <1 ppm	-	-	10-21-94	94065	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Disposed	<1 ppm	-	-	8-16-94	23239	Aptus, Inc. Aragonite, UT	Incinerated	10-05-94
Q03S	B314398	XFMR Core Recycled	3-11-92 1 ppm	-	-	10-21-94	94066	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Recycled	1 ppm	-	-	10-12-94	-	Harbor Oil Portland, OR	Recycled	-
Q03 LTC	B314398 LTC	XFMR Core Recycled	3-11-92 <1 ppm	-	-	10-21-94	94066	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Recycled	<1 ppm	-	-	10-12-94	-	Harbor Oil Portland, OR	Recycled	-
43T	59S3175	XFMR Core Recycled	3-11-92 <1 ppm	-	-	10-21-94	94070	Coleman Metals, Inc. Salem, OR	Metals recovery of drained transformer.	10-31-94
		XFMR Oil Recycled	<1 ppm	-	-	10-21-94	94070	Coleman Metals, Inc. Salem, OR	Recycled	-

ELFTSCA 00049

ELFPCB-2

ELF – Atochem North America

Oil – Filled Equipment Listing

Version 26-Oct-94							XFMR					
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
1T	F957729	IN-SERVICE	G	Alley Behind Storeroom & Shop	Chlorate	1500	215	6.6	11/19/90	0.0048	CG	
2T	8111527	DISPOSED		DISPOSED 5/23/89		800	346	100%				
3AT	66G15079-W	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.000256
3BT	66G3296-C	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.000
3CT	66G15078-E	IN-SERVICE		N of Laundry/Chlorate Process	Pole mount; Chlorate Lights, Office, Lab	250	37.6	2	6/28/93	0.0003	NC	0.000256
4AT	782017445-W	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
4BT	782017447-C	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
4CT	782017449-E	IN-SERVICE		W of Construction / Contract Offices	Pole mount; Contract Welders	75	?	ND	11/3/91	0.0000	NC	0
5XT	8906867	DISPOSED	Y	DISPOSED 8/26/93		4500	510	87	6/28/93	0.1511		
6T	C861396	STORAGE	G	W of Storeroom & Shop	Spare 750 KVA XFMR 11500/480	750	340	24	11/21/90	0.0278	NC	0.027785
7T	8111526	DISPOSED		DISPOSED 5/23/89		1000	431	100%				
8T	N239947TKUA	IN-SERVICE	B	NW Motor Truck Scale	Plant Air	500	100	<1.0	11/19/90	0.0000	NC	0
9R	AB69109T1	IN-SERVICE		E of Chlorate Cell Room	Chlorate Bay B & C	32460	?	ND	6/28/93		CS	
9TC	AB69109T1LTC	IN-SERVICE		E of Chlorate Cell Room	9R load tap changer	----	?	[ ]			CS	
9OCBA	265841A	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9OCBB	265841B	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9OCBC	265841C	IN-SERVICE	B	E of Chlorate Cell Room	Serves 9R	2000A	74	<2.0	4/17/91	0.0000	CS	
9CAP	136Y3266	IN-SERVICE		E of Chlorate Cell Room	Cap bank in Chlorate XFMR Yard	600A	?	ND	6/28/93	0.0000	CS	
10T	5393235	DISPOSED		DISPOSED 2/83		500	290	100%				
11R	ZAS79451	NOT OPER	B	E of Chlorate Cell Room	Chlorate D & E	18225	5595	7.8	11/21/90	0.1486	CS	
11X	51971	NOT OPER		E of Chlorate Cell Room	Auto XFMR	20000	?	ND	6/28/93		CS	
11OCB	4153781101	NOT OPER	B	E of Chlorate Cell Room	Serves 11R	1200A	74	ND	4/18/86	0.0000	CS	
11AT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	[ ]			CS	
11BT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	[ ]			CS	
11CT	NOT AVAILABLE	IN-SERVICE		E of Chlorate Cell Room	Pole mount, Station service for XFMRs	25	?	[ ]			CS	
12S	B501904	DISPOSED	B	DISPOSED 8/25/93		750	685	<1.0	11/21/90	0.0000		
12X	B682310	DISPOSED	G	DISPOSED 8/25/93		8090	1260	10	4/3/92	0.0429		

ELF - Atochem North Amer

Oil - Filled Equipment Listing

Version	31-Aug-93											
Plant Number	Serial Number	Equipment Status	Equip. Label	Equipment Location	Equipment Function	Cap. KVA	XFMR FLUID (gal)	PCB conc. (ppm)	Test Date	PCB (kg)	Cont.	SUM
52CT	909912	IN-SERVICE	B	S Track 1 / Along Fence at Shore: North	Dock 1 River Cooling Water	250	52	[ ]			CS	
54T	89V5698	IN-SERVICE	B	W of Operations Office	Chlorate Process	1500	420	<1.0	11/21/90	0.0000	CS	
55T	89V5697	IN-SERVICE	B	E of Chlorate Cell Room	Boiler Room, Carrier	1500	420	<1.0	11/21/90	0.0000	CS	
55OCB	N75H114ESC	IN-SERVICE	B	E of Chlorate Cell Room	Serves 55T	600A	50	1.7	11/19/90	0.0003	CS	
56T	89V5699	IN-SERVICE	B	W of Chlorine Cell Room	Motor Power Cl2 Plant	1500	420	<1.0	11/19/90	0.0000	CG	
57T	89V5700	IN-SERVICE	B	S of Compressor Room	Motor Power Cl2 Plant / Brine	2000	629	<1.0	11/20/90	0.0000	CS	
58T	09L80A1002C	IN-SERVICE	B	E of Chlorate Cell Room	Cooling tower, ClO3 process	2000	766	<1.0	11/21/90	0.0000	CS	
58OCB	75C128ESC	IN-SERVICE	B	E of Chlorate Cell Room	Serves 58T	600A	50	1.2	11/19/90	0.0002	CS	
61OCBA	6351004CA1A	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	3.9	11/19/90	0.0007	CS	
61OCBB	6351004CA1B	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	< 1.0	11/21/90	0.0000	CS	
61OCBC	6351004CA1C	NOT OPER	G	E of Chlorate Cell Room	Serves 15R	1200A	49	< 1.0	11/19/90	0.0000	CS	
62OCBA	318523A	IN-SERVICE	B	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	2.9	4/16/91	0.0007	NC	0.000721
62OCBB	318523B	IN-SERVICE	G	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	< 2.0	4/16/91	0.0000	NC	0
62OCBC	318523C	IN-SERVICE	G	Temp. Feed 4 S.BPA Substation	Serves 9 Rect	2000A	73	2.3	4/16/91	0.0006	NC	0.000572
63OCB	0442A6737110	IN-SERVICE	G	S of BPA Substation Annex	N. CAP Bank	1120A	70	5.7	11/21/90	0.0014	NC	0.001359
Q01S	C658763	DISPOSED	G	DISPOSED 8/25/93		5238	605	13	4/3/92	0.0268		
Q01LTC	C658763LTC	DISPOSED	G	DISPOSED 8/26/93		—	180	11	4/3/92	0.0067		
Q02R	C658764	DISPOSED	G	DISPOSED 8/25/93		4999	3000	2	4/3/92	0.0204		
Q03S	B314398	IN-SERVICE	B	E of Chlorate Cell Room	Temp for #13 Regulating XFMR	4300	1635	1	3/11/92	0.0056	CS	
Q03LTC	B314398LTC	IN-SERVICE	B	E of Chlorate Cell Room	Q03 load tap changer	—	165	<1.0	3/11/92	0.0000	CS	
Q04R	B314399	DISPOSED	G	DISPOSED 8/26/93		4300	2728	3	4/3/92	0.0278		
D05	6906885	DISPOSED	G	DISPOSED 8/26/93		4500	610	6	6/28/93	0.0087		
Q06	7982331	DISPOSED		DISPOSED 86		1000	195	602		88		
	739815	DISPOSED	G	DISPOSED 8/25/93		100	100	2	6/28/93	0.0007		
	739817	DISPOSED	G	DISPOSED 8/26/93		100	100	< 1.0	6/28/93	0.0000		
	4010062	DISPOSED		DISPOSED	Warehouse 2 / Rexselen Rect	?	1.5	301	6/6/89			
	4010061	DISPOSED		DISPOSED	Warehouse 2 / Rexselen Rect	?	1.5	309	6/6/89			

(REMAINING ON SITE AT END OF 1993)

PCB TRANSFORMERS (≥ 500 ppm) NONE

PCB CONT. TRANSFORMERS (50 to 499 ppm) NONE*

* (OUT OF SERVICE) 13SA, 13RA, 16T, 90T 4

LARGE PCB CAPACITORS NONE

ELFTSCA 00059