

RCRA RECORDS CENTER
FACILITY Aerovox Inc
I.D. NO. MMD062319777
FILE LOC. Admin. Records #21
OTHER (R-10)

AEROVOX INCORPORATED
New Bedford, Massachusetts

Aerovox
1.3
248141



SDMS DocID 248141

Marianne Milette
Marianne Milette, Inspector

Kimberly Tisa
Kimberly Tisa, Inspector

May 29, 1997
Inspection Date

June 3, 1997
Date Report Written

I. Facility Name, Address:

Aerovox Incorporated
740 Belleville Avenue
New Bedford, MA 02745-6194

II. Inspection Participants:

EPA: Marianne Milette, TSCA PCB
Kimberly Tisa, TSCA PCB

Aerovox: Peter Szwaja, Environmental Control Engineer

III. Background:

Aerovox is a manufacturer of various types of capacitors, most of which are oil filled. The New Bedford facility has been in operation since 1938. While the site was purchased by Aerovox in 1938, it became Aerovox Inc. in 1978. PCB capacitors were manufactured from approximately the mid 1940's until October 14, 1978, during which time approximately 100,000,000 lbs. of PCBs were used.

The EPA Superfund program and Aerovox entered into a Consent Order (Docket No. 81-964) in 1982 to address PCB contamination in the soils in the outside yard area. The soils were capped with asphalt and metal sheeting was placed on the banks of the Acushnet river to prevent migration. Groundwater monitoring wells were installed and monitoring of the groundwater and the integrity of the cap/metal sheeting continues. The Superfund program did not address any areas inside of the building.

On June 18, 1981, a TSCA PCB compliance inspection was conducted of the facility by Versar Inc. through an EPA Headquarter's contract (refer to attachment A). The inspection report did not address any potential PCB contamination of the interior structural portions of the facility.

IV. Inspection:

A multi-media inspection was targeted by the compliance targeting team. The RCRA and AIR programs initiated their inspections on April 15, 1997. The TSCA PCB program conducted an inspection under the authority of Section 11 of the Toxic Substances Control Act (TSCA) to determine compliance with the PCB Rules. The scope of this report relates to the TSCA PCB inspection. At approximately 9:00 A.M. on May 29, 1997, Kimberly Tisa and Marianne Milette met with Peter Szwaja for purposes of conducting a TSCA PCB inspection. After presentation of inspectors' credentials, notices of inspection and confidential business information were presented to and signed by Mr. Szwaja.

Mr. Szwaja has been employed at the facility since 1988 in the position of Environmental Control Engineer. Mr. Szwaja explained the current operations and the management of waste. Approximately 90% of the capacitors manufactured at the facility are oil filled capacitors. The five types of oils used are: 1) NF White Mineral Oil; 2) AA Standard Castor Oil; 3) Sure Sol-250; 4) Di(2-ethylhexyl) phthalate; and 5) INDOPOL H-300. All of the oils are purchased from U.S. companies. The capacitors are filled with oil by placing the capacitors into impregnation tanks and applying a vacuum which allows the oils to be drawn into a small "fill hole" on the top of the capacitors. After the capacitors are removed from the tanks, the fill hole is soldered closed. Degreasing operations occur at different stages of the manufacturing process and trichloroethylene (TCE) is the solvent used in their degreasing units. Currently the facility operates 4 degreasing units and 3 solvent recovery stills. Aerovox plans on replacing all of the degreasing units by the end of 1997.

The facility comprised three floors. The second and third had wooden floors and the first had a concrete floor. On the third floor energy discharge capacitors, which are dry capacitors, were manufactured. Mr. Szwaja stated PCB capacitors were never manufactured on this floor. A high voltage degreasing unit was located on this floor. The waste from this unit is drummed and brought to the main still on the first floor to recover the solvent.

The second floor was where the oil filled capacitors were manufactured. Three degreasing units (can degreaser, basket degreaser, final test degreaser) were located on this floor. The "can degreaser" was used for degreasing the capacitor cans and covers. A still was hard piped to this unit for solvent recovery. At this point in the process the

capacitors were assembled. After assembly the capacitors were put in metal baskets and placed into the impregnation tanks to be filled with one of, or a combination of, the five oils depending of the specification. The virgin oils go to mixing tanks where chemicals are added to increase the life of the oil, then to clean oil storage, then to the oil impregnation tanks, then to dirty storage, then through media filtration (via Fullers Earth), then to clean oil storage and the cycle is repeated. These impregnation tanks were the same tanks that use to contain PCB oils. Heavy oil staining was noted throughout this area. In general, oil staining was noted throughout the second floor. Once the capacitors were filled, the baskets with the capacitors were lifted out of the tanks and placed onto conveyor belts for transport to the solder operation. The capacitors were individually lifted out of the baskets and the fill holes were hand soldered. The baskets were then brought to the basket degreaser. The spent solvent from the basket degreaser is drummed and brought to the main still for recovery. Once the fill holes were soldered, the capacitors were placed into small baskets and brought by conveyor belt to and through the final test degreaser. A still was hard piped to the final test degreaser. EPA attempted to obtain a sample of the recovered solvent from this distillation unit but was unable to access the solvent due to the hard piping of the unit. K. Tisa asked if the recovered solvent was ever analyzed for PCBs. Mr. Szwaja stated a PCB analysis has never been done on the recovered solvent.

The first floor was where the main still was located and all oils and wastes were stored. A split sample of the recovered solvent from the main still was obtained, sample # MM-052997-S02A and S02B. The PCB waste storage area was located in the same room as the main still. The storage area, was "M_L" marked, had a concrete floor and was contained by a 6" concrete berm. Eleven 55-gallon drums of PCB waste were stored in this area. Each drum was "M_L" marked, dated and showed no signs of leaking. The oldest out of use date on the drums was 3/17/97. The facility submitted a Notification of PCB Activity Form 7710-53 on February 27, 1990 and received a TSCA PCB identification number as a generator with onsite storage of PCB waste.

Mr. Szwaja stated that all still bottoms and waste oils were manifested as TSCA PCB waste. The spent Fullers Earth filter media from the impregnation oil recovery process was drained of oil and manifested as RCRA waste. A split sample of the spent Fullers Earth was obtained, sample # MM-052997-S03A and S03B. M. Milette asked why some drums were stored as PCB waste and some as RCRA hazardous waste if all waste is manifested as TSCA PCB waste. Mr. Szwaja stated they

manifest the still bottoms and waste oils as TSCA to be on the safe side. In the past Mr. Szwaja tested composites of the drums to determine the PCB concentration. Even though the composite test may have shown the PCB levels to be low or non-detect, the shipment still had a possibility of being rejected at the receiving facility. Between the cost of sampling each drum individually and the chance that a second sample of the drum may reveal a different PCB concentration than the original test, Mr. Szwaja determined that it was more economical and environmentally safe to assume that all waste oil and still bottoms contained TSCA regulated levels of PCBs. Mr. Szwaja has not sampled the waste for PCBs since 1994, but continues to manifest the material as TSCA PCB waste between 50ppm and 500ppm. Mr. Szwaja speculates that the PCB contamination comes from the basket degreasing operation. The baskets were placed on the floor, which according to Mr. Szwaja has residual PCB contamination, and the baskets become contaminated from the contact with the floor. These baskets go through the basket degreaser and the waste from this degreaser is collected and brought to the main still. Therefore the waste processed in the main still is collected and stored as PCB waste. Waste oils and still bottoms from the other degreasing and still operations were stored as RCRA hazardous waste. Because of cost considerations all the waste is manifested as TSCA PCB waste.

M. Milette asked Mr. Szwaja if any PCB Transformers were used at the facility. Mr. Szwaja stated that to the best of his knowledge there were no longer any PCB Transformers at the facility. They were removed/retrofitted prior to his tenure. Mr. Szwaja conducted a tour around the outside of the facility to point out the remaining transformers. Six transformers were observed, refer to attachment B for a sketch of the transformer locations. Two transformers were labeled Non-PCB. One transformer appeared to be a new transformer. The other three transformers did not indicate any PCB trade names, or PCB markings. No leaks or stains were observed on any of the transformers.

V. Record Review:

Annual Document Logs recording manifested waste were reviewed. The documents and manifests appeared in order.

No listing of transformers was available. M. Milette asked Mr. Szwaja if the facility electrician may have information on the existing transformers. Mr. Szwaja stated he would check with the electrician and provide a listing and any available data on the transformers.

The "Lab Log Book" was reviewed. This book contained hand written information on PCB sampling data, refer to document #MM-052997-D07. Entry 1515 dated 3-25-96 is the analytical result of floor wash water (outside of tank room), which identified the PCB concentration in the wash water as 170,000 ppb.

VI. Closing Conference:

M. Milette informed Mr. Szwaja that the analytical results of the samples collected would be forwarded to him as soon as they are received. Mr. Szwaja agreed to provide a listing and available data on the existing transformers. M. Milette stated there was a concern regarding the oil staining on the floors of the facility. M. Milette stated she would confer with EPA Headquarters and the Region and get back to Mr. Szwaja. Mr. Szwaja was presented with and signed a copy of the declaration of confidential business information and the receipt for documents forms.

VII. Samples and Documents:

As listed in the receipt for samples and documents. Mr. Szwaja retained all "B" denoted samples.

ATTACHMENT A

U.S. v. AVX Original
Litigation Document

REPORT ON INSPECTION TO DETERMINE COMPLIANCE
WITH THE FEDERAL PCB DISPOSAL AND MARKING REGULATIONS

AEROVOX INDUSTRIES, INC.
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS 02741

JUNE 18, 1981

PERFORMED FOR:

U.S. ENVIRONMENTAL PROTECTION AGENCY
ENFORCEMENT DIVISION, AIR COMPLIANCE
1 CAMBRIDGE STREET
JFK FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02741

PERFORMED BY:

VERSAR INC.
6621 ELECTRONIC DRIVE
SPRINGFIELD, VIRGINIA 22151

Objective

The purpose of this inspection was to document and verify the compliance of Aerovox Industries, Inc. with Federal PCB Disposal and Marking Regulations (40 CFR 761) published in Part VI of the Federal Register on May 31, 1979. The specific objective of this inspection was to document and verify the PCB disposal and storage practices at this facility.

I. Facility and Responsible Official

Aerovox Industries, Inc.
740 Belleville Avenue
New Bedford, Massachusetts 02741

Norman Butterworth, Manager, Industrial Engineering
Phone: (617) 944-9661

II. Inspection Date and Participants

June 18, 1981

Aerovox Industries, Inc. - Clifford H. Tuttle, Jr., President
Norman Butterworth, Manager, Industrial
Engineering

U.S. EPA - Jim Oakun, Environmental Scientist
Steven Fradkoff, Environmental Engineer

Versar Inc. - Robert F. Murphy, Compliance Auditor
Paul E. Schaffman, Compliance Auditor

III. Inspection Findings

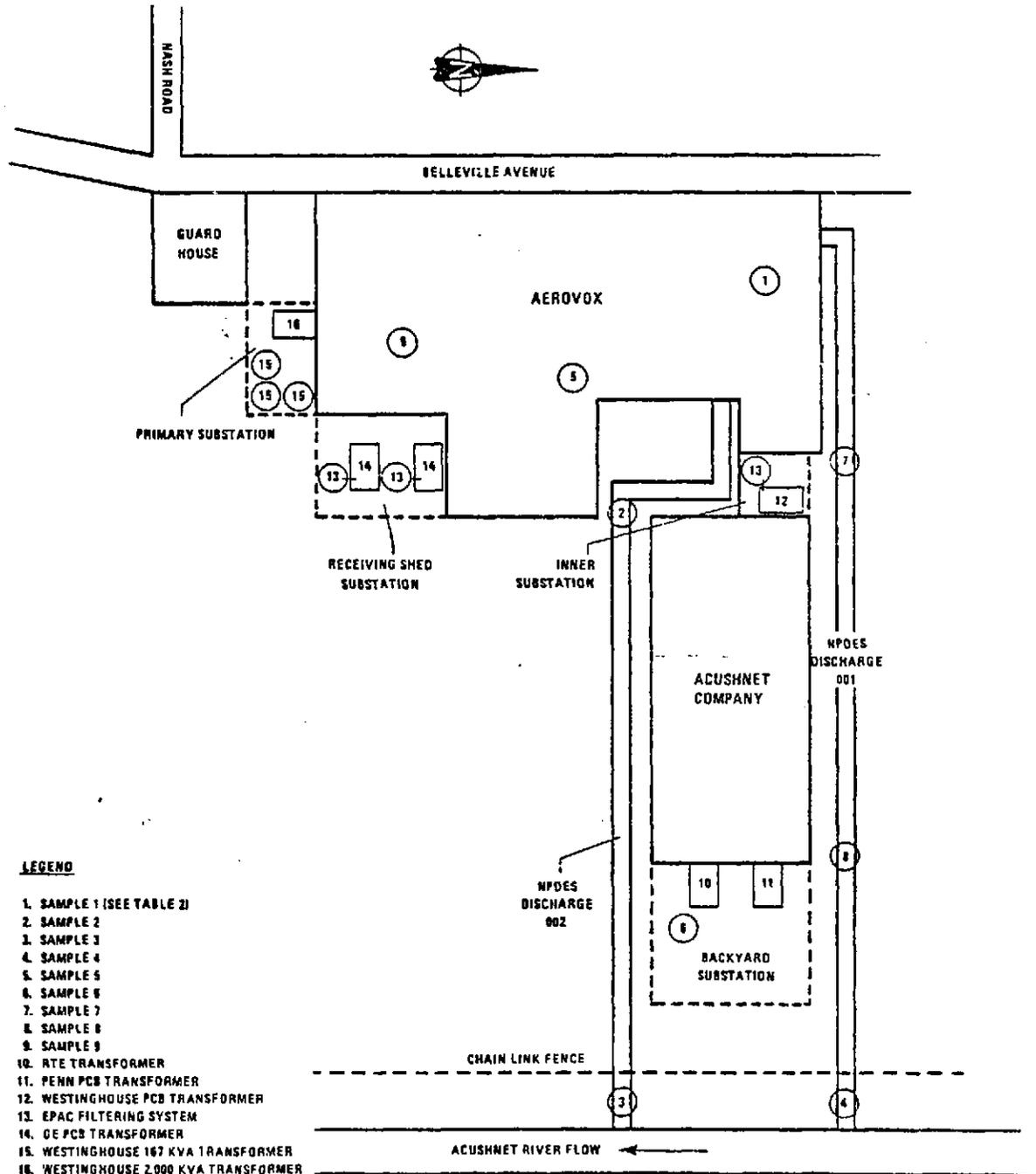
According to the facility PCB Annual Reports, and based on inspection of the plant, there were four PCB transformers, and an unknown number of mineral oil transformers in service at Aerovox Industries, Inc. There were also three PCB capacitors stored for reuse. The facility has purchased millions of pounds of PCB Aroclor from Monsanto in the past (See Attachments 1 and 2). The NPDES water discharges, the former PCB impregnation tanks, and the capacitor casing degreasing operation were all investigated during the inspection.

All four of the PCB transformers, and five mineral oil transformers were observed by the inspectors and are described in Table 1. The facility is in the process of reclassifying three of its PCB transformers by refilling the transformers with RTEmp fluid and filtering the fluid for residual PCBs, using an EPAC filter system. The two General Electric PCB transformers, which have been using the EPAC filtering system since 2/15/81, do not have the M_L PCB labels affixed to them. These transformers have not been tested for PCB concentration since the EPAC system commenced operation. The third transformer which is using the EPAC filter system, is a Westinghouse transformer, and it has an M_L PCB label affixed. According to the most recent PCB Annual Report for the facility, the fourth PCB transformer is located in the backyard substation (See Figure 1). The nameplate of this elevated transformer could not be read to verify whether it was a PCB transformer, and the unit was not marked with the M_L PCB label (See Table 1 and Attachment No. 4).

There were three Cornell-Dubilier large, high-voltage PCB capacitors in the machine shop on the third floor of the main manufacturing building. Mr. Butterworth stated that these units are stored for reuse in electrical equipment. All three were marked with M_L PCB labels and were not leaking. According to Mr. Butterworth, there are no PCB capacitors remaining at this facility from the previous PCB capacitor manufacturing operations. Aerovox discontinued the manufacture of PCB capacitors in October 1978.

Aerovox Industries, Inc. is using dioctyl phthalate (DOP) as a substitute for Askarel in many of their new capacitors. An oil sample was collected from Impregnation Tank No. 3, from which capacitors were currently being filled with DOP. No PCB contamination was detected (See Table 2). In the past, capacitors were filled with Askarel that was stored in this same impregnation tank. No PCB testing results could be furnished by Mr. Butterworth regarding the PCB concentration of the fluids in the impregnation tanks, or bulk DOP storage tanks, since the PCB fluid was removed from the system.

Aerovox Industries, Inc. had previously purchased millions of pounds of Aroclor from Monsanto for use in their capacitors. Based on a PCB mass balance for 1971-1975, as presented in Attachment No. 2, small amounts of



LEGEND

- 1. SAMPLE 1 (SEE TABLE 2)
- 2. SAMPLE 2
- 3. SAMPLE 3
- 4. SAMPLE 4
- 5. SAMPLE 5
- 6. SAMPLE 6
- 7. SAMPLE 7
- 8. SAMPLE 8
- 9. SAMPLE 9
- 10. RTE TRANSFORMER
- 11. PENN PCB TRANSFORMER
- 12. WESTINGHOUSE PCB TRANSFORMER
- 13. EPAC FILTERING SYSTEM
- 14. GE PCB TRANSFORMER
- 15. WESTINGHOUSE 167 KVA 1 TRANSFORMER
- 16. WESTINGHOUSE 2,000 KVA TRANSFORMER

THIS FIGURE IS NOT TO SCALE.

FIGURE 1. SCHEMATIC OF AEROVOX INDUSTRIES, INC., NEW BEDFORD, MASSACHUSETTS

TABLE 1. TRANSFORMERS INSPECTED AT AEROVOX INDUSTRIES, INC.

Type	Rating (kva)	Substation	Fluid	M ₁ PCB Label	Gallons
Westinghouse	2,000	Primary	Mineral Oil	No	790
Westinghouse	167	Primary	Mineral Oil	No	-
Westinghouse	167	Primary	Mineral Oil	No	-
Westinghouse	167	Primary	Mineral Oil	No	-
General Electric	500	Receiving	Pyranol/R-Temp	No	192
General Electric	500	Receiving	Pyranol/R-Temp	No	192
Pennsylvania	500	Backyard	PCB (?)	No	-
RTE	500	Backyard	Mineral Oil	No	225
Westinghouse	57	Inner	Inerteen/R-Temp	Yes	91

TABLE 2. DESCRIPTION OF PCB SAMPLES COLLECTED AT AEROVOX INDUSTRIES, INC.
NEW BEDFORD, MASSACHUSETTS

Sample Number	Description	PCB Concentration (ppm)	Aroclor Type
1	Oil from DOP Impregnation tank	<1	---
2	Soil from culvert 002	200	1254
3	Soil from Outfall 002	22,000	1254
4	Soil from Outfall 001	40	1242
5	Oil from TCE (still bottoms)	170	1242
6	Soil from stained ground in backyard substation	24,000	1254
7	Soil from culvert 001 (upstream)	11,000	1242
8	Soil from culvert 001 (downstream)	23,000	1242
9	Oil from drum of waste DOP	<1	---

PCBs have been discharged through the two NPDES outfalls (001 and 002) into the Acushnet River. Aerovox Industries, Inc. has installed a water recirculation system at their plant, and now rarely discharge effluent, and when, only through Outfall 001. Acushnet Company leases property from Aerovox Industries, Inc., and currently contributes almost all of the effluent water which leaves the Acushnet facility through Outfall 002. Oil-impregnated soil was observed in the culverts leading to and at both outfalls (See Photographs in Attachment B). Five soil samples were collected associated with Outfalls 001 and 002. Locations are shown in Figure 1 and the PCB analytical results are reported in Table 2. PCB analytical results of these five sampling points range from 40 ppm to 23,000 ppm PCB Aroclor 1242.

A soil sample was collected from a stained area in the backyard power substation (See Photograph No. 5). A concentration of 24,000 ppm PCBs was found in this sample (See Table 2). According to Mr. Oakum of the U.S. EPA, this area was used for drum storage within the last month.

Aerovox Industries, Inc., had a capacitor casing degreasing operation utilizing trichloroethylene (TCE) as the degreasing solvent. Degreasing residues (still bottoms) from this process are stored in 55-gallon drums in an undiked room which has a concrete floor. Three full 55-gallon drums with black on red hazardous waste labels, but no M_L PCB labels, were observed in this storage area. An oil sample collected from one of these drums revealed a PCB concentration of 170 ppm (Table 2). According to Mr. Butterworth, the facility generates approximately one drum per week, and disposes of the drums through Recycling Industries. Mr. Butterworth also stated that Aerovox Industries, Inc. occasionally collects composite samples from these drums, and tests them for PCBs. PCB concentrations in excess of 50 ppm have been found. Mr. Butterworth did not furnish the inspectors with prior sample analyses for PCB testing from this degreasing process.

The waste oil storage area was located in the basement of the Main Manufacturing Building at Aerovox Industries, Inc. (See Figure 1). Approximately twenty 55-gallon drums of non-reclaimable DOP and compressor oils are stored for disposal on pallets above a cement floor. All of the drums have the black on red hazardous waste labels affixed. The area is

not diked, and there are no M_L PCB labels on the drums. A sample from one of the drums, which contained non-reclaimable DOP, was collected and showed no PCB contamination (Table 2).

The facility has a 14 x 14 foot PCB storage area, with a six-inch concrete curb containment wall, and a concrete floor. No PCB articles were in the storage area at the time of the inspection. The storage area was marked with the M_L PCB label. Most of the PCB articles previously in storage at Aerovox Industries, Inc., have been hauled to Recycling Industries, Inc., in Braintree, Massachusetts, where they are being stored and are awaiting disposal at an approved site. A disposal invoice for Aerovox Industries, Inc. is shown in Attachment No. 5. The previous disposal of a PCB transformer on 12/28/79, and the separate disposal of its 1750 kgs of PCB fluid, are explained on Page 2 of Attachment No. 4.

Aerovox Industries, Inc. had PCB annual documents for the 7/1/78 to 7/1/79, and 7/1/79 to 7/1/80 reporting years (See Attachments 3 and 4). These annual documents pertain only to electrical equipment and are not summarized on a standard calendar year basis.

According to Mr. Butterworth, there were no hydraulic systems which contain more than one quart of hydraulic fluid at Aerovox Industries, Inc. and that press machines were electric-powered at this facility.

IV. Facility Description

Aerovox Industries, Inc., is a capacitor manufacturer, which produces paper, paper oil, electrolytic and mica capacitors. The facility manufactured PCB capacitors from 1947 to 1978. The plant employs approximately 850 people, and is in operation 24 hours a day, seven days a week. Presently, Aerovox Industries, Inc. leases some of their property to Acushnet Company for their own capacitor manufacturing operation.

The site of the present plant was formerly a textile mill since 1921. In 1938, Aerovox Corporation bought the plant and moved its capacitor operations from New York City to New Bedford. On January 1, 1973, the facility was sold to Belleville Industries, Inc., which subsequently changed its name to Aerovox Industries, Inc. This facility is ^{NOW} a subsidiary of RTE Corporation of Waukesha, Wisconsin.

V. Inspection Summary

The inspectors arrived at the facility accompanied by the EPA personnel on the morning of June 18, 1981, and met Mr. Tuttle, and Mr. Butterworth. Mr. Tuttle was presented with the inspectors' credentials, a "Notice of Inspection" and a "Notice of Confidentiality." Mr. Tuttle signed both notices and returned them to the inspectors. The EPA personnel seeing that the inspectors had no problem with entry, left the facility.

The inspectors commenced their visual inspection of Aerovox Industries, Inc. at the capacitor fluid-filling operation, where they collected an oil sample from Impregnation Tank No. 3. The inspection team next stepped outside where they sampled and photographed NPDES Outfalls 001 and 002, as well as culvert 002. The inspectors proceeded to inspect the PCB transformers at the facility and documented their findings in Table 1 of this report. The inspection team moved to the TCE still bottoms drum storage area, where they collected an oil sample from one of the drums. The inspectors again stepped outside and proceeded to collect two soil samples from culvert 001. Finally, the waste oil storage area and the PCB storage area were inspected and documented.

The inspectors returned to Mr. Butterworth's office and presented him with a "Receipt for Samples and Documents." He signed the receipt and returned it to the inspectors. The inspectors requested copies of PCB sampling analyses for the TCE degreasing operation, and the former PCB filling operation. Mr. Butterworth said he would try to obtain copies of these analyses and mail them to the inspectors. To date this information has not been received.

LIST OF ATTACHMENTS

AEROVOX INDUSTRIES, INC.
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS 02741

JUNE 18, 1981

ATTACHMENTS:

- A. PCB Analytical Report
- B. Photographs
- C. Notice of Inspection
- D. Notice of Confidentiality
- E. Receipt for Samples and Documents
- F. Chain of Custody Record

ATTACHMENTS OBTAINED FROM FACILITY:

- 1. Letter to EPA explaining prior PCB usage at Aerovox Industries, Inc. (3 pages)
- 2. PCB Purchase and Disposal Chart for 1971-1975 (1 page)
- 3. PCB Annual Report for 7/78 - 7/79 (3 pages)
- 4. PCB Annual Report for 7/79 - 7/80 (3 pages)
- 5. PCB Disposal Invoice for 11/14/80 (1 page)



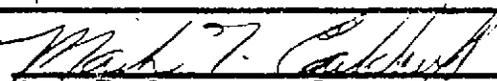
PCB ANALYTICAL REPORT

PREPARED FOR: Mr. Jon Byroade

REF. # 717.7

Facility Inspected AEROVOX INDUSTRIES, INC.

SAMPLE NO.	LAB NO.	CONCENTRATION PARTS/MILLION	APROCLOR	COMMENTS
AUX-01	4656	<1	—	Oil
AUX-02	4657	200	1254	Soil
AUX-03	4658	22,000	1254	Soil
AUX-04	4659	40	1242	Soil
AUX-05	4660	170	1242	Oil
AUX-06	4661	24,000	1254	Soil
AUX-07	4662	11,000	1242	Soil
AUX-08	4663	23,000	1242	Soil
AUX-09	4664	<1	—	Oil

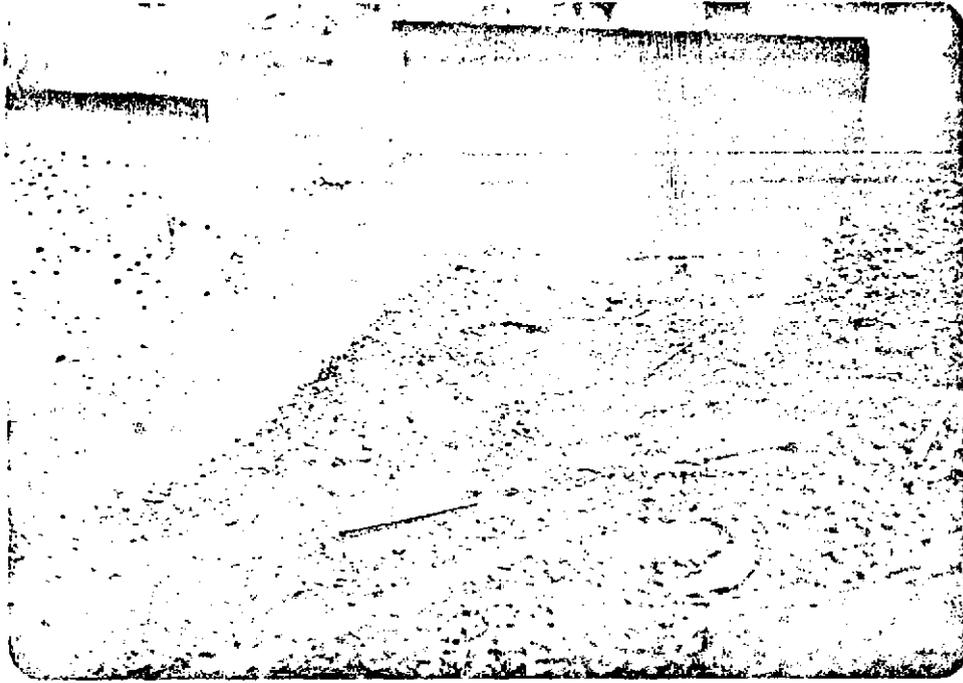
DATE: 8/19/81

 MARK T. CARCLIFF, CHEMIST
 APPLIED CHEMISTRY DIVISION

ATTACHMENT B

AERVOX INDUSTRIES, INC.
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS 02741

JUNE 18, 1981

1. A view of oil-impregnated soil in culvert 001.
2. A soil sample being collected from NPDES Outfall 001.
3. Another look at culvert 001.
4. The bend in culvert 002 where a soil sample was collected.
5. Soil sample collected from a stained area in backyard substation.
6. Outfall 002, where a soil sample was collected. Notice the black stained area along the sides of the outfall.



1. A view of oil-impregnated soil in culvert 001.

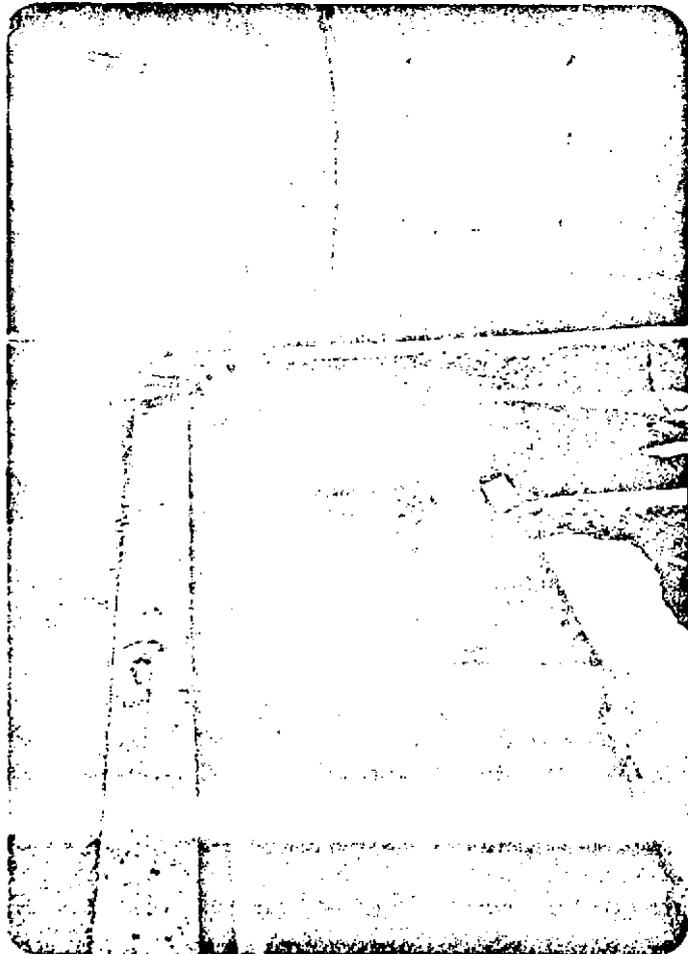


2. A soil sample being collected from NPDES Outfall 001.

PHOTOGRAPHS
JUNE 18, 1981

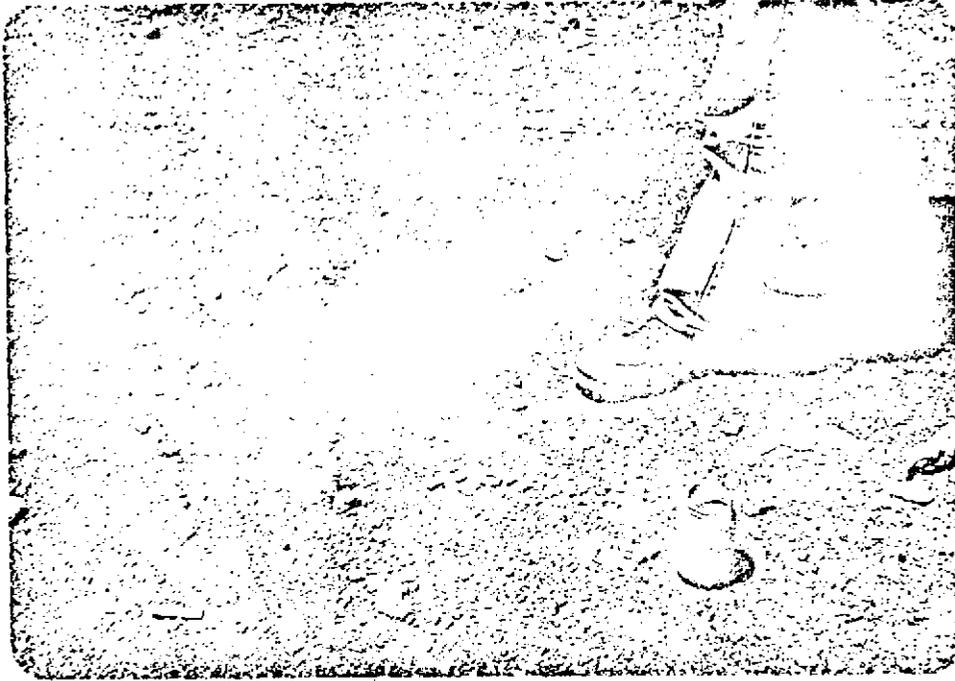


13. Another look at culvert 001.

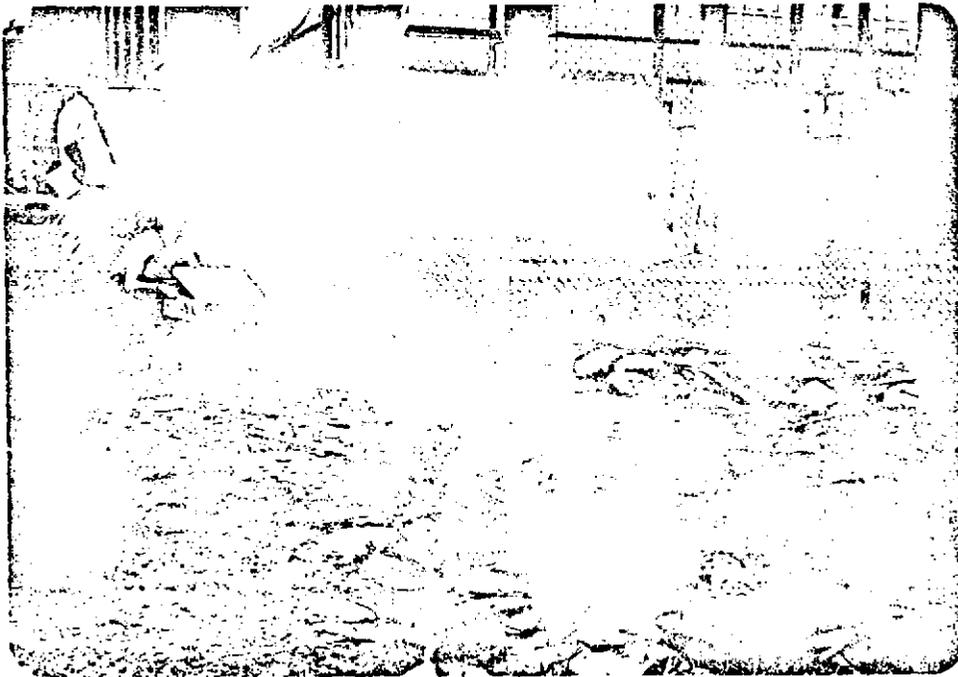


The bend in culvert 002 where a soil sample was collected.

PHOTOGRAPHS
JUNE 18, 1981



5. Soil sample collected from a stained area in backyard
substation.



6. Outfall 002, where a soil sample was collected. Notice the
black stained area along the sides of the outfall.



United States
Environmental Protection
Agency

NOTICE OF INSPECTION

Aerovox Inc.

Firm Address

740 Belleville Ave.
New Bedford, Mass 02741

Inspector Name and Address

Paul Schaffner
Bob Murphy

Date

6/10/81

Time

9:20 AM

Inspector's Signature

Paul Schaffner

Name and Title of Recipient

Clifford M Tuttle, Jr.

Title

Compliance Auditor

Signature of Recipient

Clifford M Tuttle, Jr.

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 compiled with.



In addition, this inspection extends to (circle appropriate letters):

- (A) Financial data
- (B) Sales data
- (C) Pricing data
- (D) Personnel data
- (E) Reserach data

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



United States Environmental Protection Agency

TSCA INSPECTION CONFIDENTIALITY NOTICE

Aerovox Industries Inc.

Facility Address

740 Belleville Ave.
New Bedford, Mass 02741

Inspector Name

Paul Schaffman

Inspector Address

Versar Inc.
6621 Electronic Dr
Springfield, MA 01111

Chief Executive Officer of Firm

Clifford H Tuttle, Jr.

Title

President

Name of Individual to Whom Notice Given

C.H. Tuttle Jr.

Title

Pres

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 U.S.C. 552; EPA regulations issued thereunder; 40 CFR Part 2; and the Toxic Substances Control Act, 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 contains information entitled to confidential treatment.

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. If you make claims of confidentiality, 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 information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed and certified confidential.

To Claim Confidential Information

To claim information confidential, you must certify that each claimed item meets all of the following criteria:

- Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
- 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 a 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 and meets the four criteria listed above.

If you are not authorized by your company to make confidentiality claims, 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 two 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:

and mailed by registered, return-receipt-requested mail within seven (7) calendar days of receipt of this Notice.

Failure by your firm to submit a written request that information be treated as confidential, either at the completion of the inspection or by the Chief Executive Officer within the seven-day period, will be treated by EPA as a waiver by your company of any claims for confidentiality regarding the inspection data.

To be completed by facility official receiving this notice

I have received and read this Notice.

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

Name

Title

Title

Signature

Clifford H Tuttle, Jr.

Address

Date

 United States Environmental Protection Agency RECEIPT FOR SAMPLES AND DOCUMENTS		Name of Firm Aerovox Industries, Inc. Firm Address 740 Belleville Ave New Bedford, Mass 02744
Inspector Name Robert Murphy		Name of Individual Norman Butterworth
Inspector Address 6621 Electronic Drive Springfield, Va		Title Manager Ind Engineering
Date Collected 6/18/81	Duplicate Samples Requested and Received <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample Numbers 1-AUX-01 to 1-AUX-09

The documents and samples of chemical substances and/or mixtures described below were collected in connection with the administration and enforcement of the Toxic Substances Control Act.

Receipt for the document(s) and/or sample(s) described is hereby acknowledged:

SAMPLES

- 01 - oil: impregnation tank #3
- 02: soil: ~~soil~~ culvert 002 by loading dock
- 03: sediment: 002 outfall
- 04: " = 001 outfall
- 05: TCE STILL BOTTOMS - OIL
- 06 - SOIL: BACKYARD SUBSTATION (2)
- 07 - ~~soil~~ SEDIMENT: CULVERT 001 by fire exit
- 08 - " - CULVERT 001 downstream
- 09: OIL - nonclaimable DOP waste

DOCUMENTS

- 78-71 PCB REPORT
- 79-80 PCB REPORT
- DISPOSAL RECORD
- MEMO TO JEFF MILLER 9-7
- Photographs
Approx 8 of the sampling

Signature of Inspector 	Signature of Owner, Operator, or Agent 
Title Compliance Auditor	Title Mgr. I.E.

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS	REMARKS									
7171		REGION I PCB INSPECTION												
SAMPLERS: (Signature)														
RO SJA / Robert M...														
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION									
AJX	6/23/81	11:00 AM			DOP IMPREC - TANK #3	1	Q	1	A	V	X	01	OIL	
		11:15			CULVERT #02 SOUTH DOCK							02	SOIL	
		11:30			DISCHARGE #02							03	SOIL	
		11:40			DISCHARGE #01							04	SOIL	
		11:50			TRE STILL BOTTOMS							05	OIL	
		12:10			BACKYARD - 0 STAIN							06	SOIL	
		12:50			CULVERT #02 UPSTREAM							07	SOIL	
		12:55			CULVERT #02 DOWNSTREAM							08	SOIL	
		1:15			WASTE DOP							09	OIL	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)				
RO SJA		6/23/81 9:35		Mark T. Cuddy										
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)				
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks						

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

ATTACHMENT F

AEROVOX[®]
INDUSTRIES, INC.

P. O. Box B-970
740 Belleville Ave.
New Bedford, Mass. 02741
617-994-9661

September 29, 1975

Mr. Jeffrey Miller
Director, Enforcement Division
Environmental Protection Agency
John F. Kennedy Federal Building
Boston, Massachusetts 02203

Dear Mr. Miller:

As requested in Mr. Legro's letter of August 16, 1975, we have answered the questions to the best of our ability. In addition, the following information about our company and its use of Polychlorinated Biphenyl (PCB) may provide useful background and perspective.

Aerovox Corporation (now AVX Corporation) was a manufacturer of capacitors for approximately 50 years. In 1938 that company moved from New York City to New Bedford and housed its operation in a former textile mill on the shore of the Acushnet River, which is a tidal estuary at this point. The New Bedford operation manufactured several categories of capacitors including Paper, Paper Oil, Electrolytic and Mica Capacitors. In 1947 it commenced using Aroclor (which contains PCB's) as an impregnating fluid for paper oil capacitors because of the exception stability of this material and insurance company and building code requirements that flammable fluids are not allowed in capacitors used in building. These same qualities are still required to produce a dependable, safe and low cost capacitor. The early Aroclor compounds were not readily biodegradable, while subsequent compositions (including Aroclor 1016 which is currently used) are considerably more benign in this respect.

On January 1, 1973, Aerovox Corporation sold its New Bedford facility to a new group which was, for a brief period of time, known as Belleville Industries, Inc., and subsequently as Aerovox Industries, Inc. The new owners have shown a keen awareness of their environmental responsibilities and have instituted Aroclor containment and incineration procedures. A copy of this Aroclor Handling Procedure is enclosed for your information (See Exhibit A).

All Aroclor utilized at Aerovox Industries is purchased from the Monsanto Industrial Chemicals Co.; from January 1, 1971 to date that

usage has averaged in excess of 1,000,000 pounds per year, predominantly of the Aroclor 1016 composition. In addition, relatively small amounts of Aroclor 1254 are used, primarily in the impregnation of capacitors for the Acushnet Capacitor Company and for the manufacture of D.C. capacitors used primarily by the U.S. military. Aroclor 1242 was used during 1971 before the more biodegradable 1016 became available.

The bulk of the Aroclor purchased leaves the plant in sealed metal cans in the form of finished capacitors being shipped to customers. These cans and covers are generally made of .015" steel although a small number are made of aluminum. The cans and covers are roll-sealed together with a cover-sealing compound material, and then impregnated with Aroclor through a small fill-hole. This fill-hole is then sealed with a silicone bung insert, or by soldering. These finished assemblies are subjected to high temperature tests to identify, cull out and reseal any leaking units. As a result, capacitors shipped into the field very seldom leak.

All Aroclor which drips off the units, the impregnation baskets and the degreasing baskets during the manufacturing cycle is caught in drip pans and stored in steel drums and accumulated for incineration. When a quantity in the order of 40,000 pounds is accumulated, it is shipped out by tank-truck to an incineration facility approved by the State of New Jersey. In the past three years, Aerovox sent out an average of more than 100,000 pounds of Aroclor per year for incineration. Prior to this time no Aroclor was sent out from this facility for incineration.

Sealed units that are rejected for various reasons are disposed of in an approved sanitary landfill site in New Bedford by a disposal contractor.

Aroclor also leaves this plant by the discharging (in suspension with cooling and sewage liquids) of extremely small quantities into the Acushnet River and the New Bedford sewer system. These small discharge amounts are unavoidably included in our cooling and sanitary liquid discharges and are in the low parts per billion level when combined with other liquid discharges. Based on analyses of both continuous and grab samples of our cooling water discharge, the amount of PCB's reaching either the Acushnet River or the city sewer system is so small as to be difficult to measure. This is due to the in-plant controls instituted under the enclosed Aroclor Handling Procedure and the increased concern of the new owners and management. All of our analytical work has been done by laboratories either at Monsanto, or at a Monsanto approved independent laboratory (Woodson-Tenent) in

Memphis, Tennessee. In several cases identical samples were analyzed by both laboratories and the parts per billion (PPB) findings were compatible.

The specific answers to your questions are as follows:

1. Not applicable
2. a) Aerovox Industries sole product is capacitors which are used in a wide variety of electrical applications ranging from ballasts used in fluorescent light circuits to atomic energy research. Each capacitor is a closed system that has no inherent means of dispersing impregnating fluids into the environment.

The physical size of the product ranges from units of approximately 1 cubic inch to units of 5,000 cubic inches. There are also wide variations in capacitance and voltage ratings of the units.

- b) The following table shows the estimated total amounts of Aroclor 1242, 1016 and 1254 which have been incorporated into our product for the years 1971, 1972, 1973, 1974 and for the first 6 months of 1975. This table was compiled from records of Aroclor purchases, capacitor production and the incineration of scrap Aroclor. Because numerous recordkeeping changes preceded and followed the advent of Aerovox Industries on January 1, 1973, it has been necessary to some degree to interpolate and extrapolate from the documents available, making every effort to maintain arithmetic integrity in the process.

SOURCE DERIVATION FOR 2B TABLE

- 1) Aroclor Purchases - obtained from Purchasing records.
- 2) Inventory adjustments are based on physical inventories at, or closest to, end of each period. (See attached Exhibit B).
- 3) Scrapped unit Aroclor weight is based on reject test data for 1973, 1974 and 1975; estimated for years 1971 and 1972. Number of units scrapped is extended by the Aroclor content of representative units in each size category. Aroclor content is obtained from bill-of-material specifications. (See attached Exhibit C illustrating how 1973 figures were obtained).

TABLE 2b

AROCLOR 1242 and 1016

	<u>AROCLOR 1242</u>	<u>1971</u>	<u>AROCLOR 1016</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Jan-June 1975</u>			
Purchases in lbs.		940800.		1662800.	1839800.	2005200.	362700.			
Plus (minus) inventory Change		<u>81786.</u>	(<u>54300.</u>)	<u>27960.</u>	(<u>83760.</u>)	<u>90720.</u>
Total lbs. available		<u>1022586.</u>		<u>1608500.</u>	<u>1867760.</u>	<u>1921440.</u>		<u>453420.</u>		
Incorporated in capacitors sold		947493.		1473772.2500	1727536.9000	1760955.1611		419437.8525		
Contained in capacitors scrapped		20604.		49484.	64725.	82832.		16266.		
Collected for incineration		54431.		85193.	75457.	77620.		17706.		
Discharged to sewer system		1.6739		1.5648	1.3135	1.1958		.6003		
Discharged to river		<u>56.4436</u>		<u>49.1852</u>	<u>39.8800</u>	<u>31.6431</u>		<u>9.5472</u>		
Total lbs. accounted for		<u>1022586.</u>		<u>1608500.</u>	<u>1867760.</u>	<u>1921440.</u>		<u>453420.</u>		

AROCLOR 1254

Purchases in lbs.		97800.		None	7200.	14400.		None
Plus (minus) inventory Change	(<u>5506.</u>)	<u>5306.</u>	(<u>6513.</u>)	<u>363.</u>
Total lbs. available		<u>92294.</u>		<u>5306.</u>	<u>687.</u>	<u>14763.</u>		<u>2063.</u>
Incorporated in capacitors sold		87097.7540		5018.4603	505.6147	14086.7478		1964.9537
Contained in capacitors scrapped		276.		6.	37.	74.		18.
Collected for incineration		4915.		281.	28.	602.		80.
Discharged to sewer system		.1511		.0011	.0005	.0092		.0027
Discharged to river		5.0954		.1628	.0148	.2430		.0436
Transferred to ACU-CAP		None		.3700	116.3700	None		None
Total lbs. accounted for		<u>92294.</u>		<u>5305.9960</u>	<u>687.</u>	<u>14763.</u>		<u>2063.</u>

PCB SUMMARY SHEET - 7/1/79

(FROM 7/1/78 TO 7/1/79)

Aerovox Inc.
740 Belleville Avenue
New Bedford, Ma. 02741

Aerovox Contact:
Norman Butterworth
Mgr. Environmental Control
Tel. #617-994-9661

ARTICLES IN USE

TRANS-
FORMERS IN
USE

PCB IN Kg's

LARGE
CAPACITORS
IN USE

PCB IN Kg's

5

6477.30

3

20.45

LIQUIDS REMOVED FROM SERVICE, ETC.

REMOVED
FROM
SERVICE

PLACED INTO
STORAGE FOR
DISPOSAL

PLACED INTO
TRANSPORT FOR
EPA APPROVED
STORAGE

INCINERATED PER
EPA APPROVED
FACILITY

32,488 Kg

32,488 Kg

32,488 Kg

--

PCB LIQUIDS REMOVED FROM SERVICE

DATE: 7/1/79
Aerovox Inc.
740 Belleville Avenue
New Bedford, Ma. 02741

Aerovox Contact:
Norman Butterworth
Mgr. Environmental Control
Tel. # 617-994-9661

<u>DATE REMOVED FROM SERVICE</u>	<u>QUANTITY IN Kg's</u>	<u>DATE PLACED INTO STORAGE FOR DISPOSAL</u>	<u>QUANTITY IN Kg's</u>	<u>DATE PLACED INTO TRANSPORT FOR EPA APPROVED STORAGE</u>	<u>QUANTITY IN Kg's</u>	<u>PLACED INTO TRANSPORT FOR APPROVED DISPOSAL</u>
11/8/77 to 8/1/78	32,488 Kg	11/8/77 to 8/1/78	32,488 Kg	1/19/79 * 1/26/79 *	14,375 Kg** 18,113 Kg**	

* Transported to EPA approved storage facility at:
Recycling Industries
385 Quincy Avenue
Braintree, Ma. 02184
Tel. #617-848-0612

** Note: Aerovox is responsible for incineration, when approved facility is available, and will arrange for pickup at Recycling Industries and transport to approved incineration site.

PCB INVENTORY
ARTICLES IN USE

DATE: 7/1/79
Acrovox Inc.
740 Belleville Avenue
New Bedford, Mass. 02741

LOCATION: Internal & External
to Plant
(see precise location)

<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>KG OF PCB's</u>	<u>DATE REMOVED FROM SERVICE</u>	<u>DATE LOCATION OF STORAGE</u>	<u>DATE REMOVED FROM STORAGE FOR DISPOSAL</u>	<u>LOCATION OF DISPOSAL FACILITY</u>	<u>COMMENTS</u>
1. Westinghouse Power Supply (contains transformer)	Pole 3C18 (internal)	477.3					
2. 25 KV Power Supply (contains 3 lg capacitors.)	Pole 3B19 (internal)	20.45					
3. Penn. 500 KVA Transformer (#16796-1)	15' east of Plant (external)	1795.5					
4. Penn. 500 KVA Transformer	15' east of Plant (external)	1795.5					
5. G.E. 500 KVA Transformer (#5889639)	10' west of Rec'g shed	1204.5					
6. G.E. 500 KVA Transformer Total (5) transformers and (3) large capacitors)	10' west of Rec'g shed	1204.5					
Total Kg's of PCB		6497.75					

NS

PCB SUMMARY SHEET - AS OF 7/1/80

(From 7/1/79 to 7/1/80)

AEROVOX INC.
740 Belleville Avenue
New Bedford, Ma. 02741

Aerovox Contact:
Norman Butterworth
Mgr. Environmental Control
Tel. #617-994-9661

ARTICLES IN USE

<u># TRANS-FORMERS IN USE</u>	<u>PCB IN Kg's</u>	<u># LARGE CAPACITORS IN USE</u>	<u>PCB IN Kg's</u>
4	4681.8	3	20.45

LIQUIDS REMOVED FROM SERVICE, ETC.

<u>REMOVED FROM SERVICE</u>	<u>PLACED INTO STORAGE FOR DISPOSAL</u>	<u>PLACED INTO TRANSPORT FOR EPA APPROVED STORAGE</u>	<u>INCINERATED PER EPA APPROVED FACILITY</u>
	NONE		

PCB LIQUIDS REMOVED FROM SERVICE

DATE: 7/1/80
AEROVOX INC.
740 Belleville Avenue
New Bedford, Ma. 02741

Aerovox Contact:
Norman Butterworth
Mgr. Environmental Control
Tel. #617-994-9661

<u>DATE REMOVED FROM SERVICE</u>	<u>QUANTITY IN Kg's</u>	<u>DATE PLACED INTO STORAGE FOR DISPOSAL</u>	<u>QUANTITY IN Kg's</u>	<u>DATE PLACED INTO TRANSPORT FOR EPA APPROVED STORAGE</u>	<u>QUANTITY IN Kg's</u>	<u>PLACED INTO TRANSPORT FOR APPROVED DISPOSAL</u>
--------------------------------------	-----------------------------	--	-----------------------------	--	-----------------------------	--

NONE

NOTE: Approximately 1750 kg of PCB were drained from 500 KVA transformer at east end of plant by Three C Electric Co. and disposed of by them.

We disposed of transformer case in ^{Dec. 28, 1979} ~~November~~, 1979 at Recycling and Newco. (See ^{shipping papers} quote)

* 280 Pleasant St.
Ashland, Mass.

PCB INVENTORY
ARTICLES IN USE

DATE: July 1, 1980
Aerovox Inc.
740 Belleville Avenue
New Bedford, Mass. 02741

LOCATION: Internal & External
to Plant
(see precise location)

<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>KG OF PCB's</u>	<u>DATE REMOVED FROM SERVICE</u>	<u>DATE LOCATION OF STORAGE</u>	<u>DATE REMOVED FROM STORAGE FOR DISPOSAL</u>	<u>LOCATION OF DISPOSAL FACILITY</u>	<u>COMMENTS</u>
1. Westinghouse Power Supply (contains transformer)	Pole 3C18 (internal)	477.3					
2. 25 KV Power Supply (contains 3 lg capacitors.)	Pole 3B19 (internal)	20.45					
3. Penn. 500 KVA Transformer (#16796-1)	15' east of Plant (external)	1795.5					
4. Penn. 500 KVA Transformer	15' east of Plant (external)		9/14/79		12/79	Recycling Industries	
5. G.E. 500 KVA Transformer (#5889639)	10' west of Rec'g shed	1204.5	2/15/81 *				
6. G.E. 500 KVA Transformer Total (5) transformers and (3) large capacitors)	10' west of Rec'g shed	1204.5	2/15/81 *				
Total Kg's of PCB		4702.25					

* changed to non-PCB fluid on this date.

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DEBIT MEMO

AEROVOX
AN RTE COMPANY INCORPORATED
P.O. BOX 8-970, 740 BELLEVILLE AVENUE, NEW BEDFORD, MASS 02741, U.S.A.

Nº 11375 AP

DATE 11/14/80

NEW BEDFORD 994-9661

1/22/81

LD TO. *Approved on Invoice # 10424*

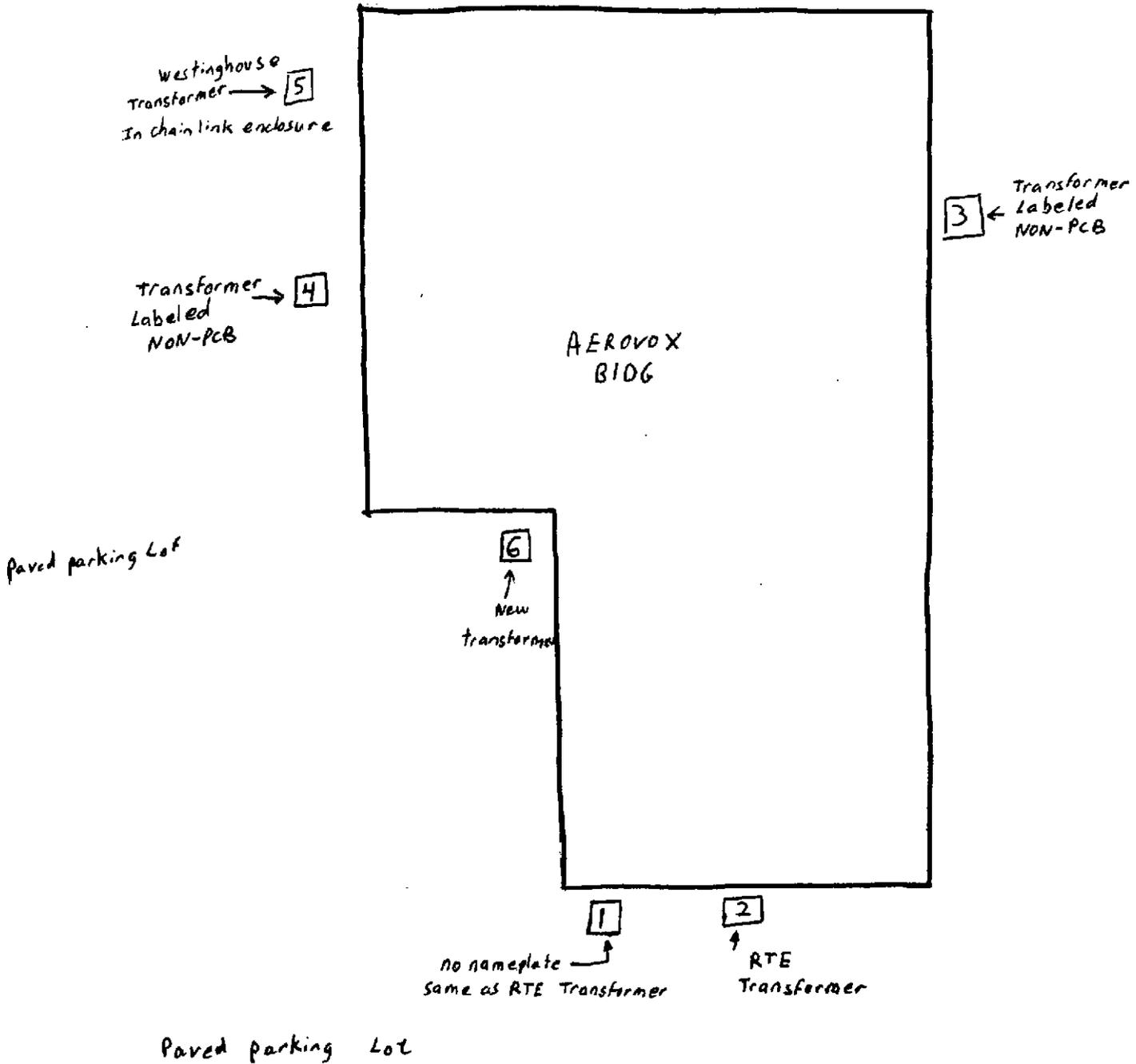
SHIP TO: Recycling Industries, Inc.
An SCA Services Co.
335 Quincy Ave.
Braintree, MA 02104

JR ORDER NO. OUR ORDER NO. F.O.B. *their truck* 11/14/80

ITEM	QUAN.		UNIT PRICE	AMOUNT
1	1	Fiber Drum Containing contaminated PCB Material		
2	53 gal. (2)	Steel Drums containing PCB Contaminated Material		
<p><i>Jay Lewis</i> 11/14/80</p> <p>Disposal in Chemically secure landfill area.</p> <p>CONTAINER WEIGHT: 38.56 KG NON-PCB WEIGHT: 734.40 KG PCB WEIGHT: 8.90 KG TOTAL WGT: 781.86 KG</p> <p>LOCATION <u>Shipping (Jefferson Loading Dock)</u> (1720 L33) DATE SHIPPED <u>11/14/80</u> VIA <u>their truck</u> NO. PCS. _____ WEIGHT _____ <u>TC</u> J. Stevens/art</p>				

ATTACHMENT B

GATE Belleville Avenue



METAL SHEETING

METAL SHEETING

ACUSHNET RIVER

NOT TO SCALE

1310	9/20/91	HADLEY	.77
1311	9/20/91	YARD	.79
1312	9/23/91	NORTH #4-5.6	
1313	9/23/91	SOUTH	
1314	9/23/91	HADLEY	
1315	9/23/91	YARD AQUATECH WELLS	
1316	10-23-91 11-14-91	NORTH	2.46
1317	1-14-91	SOUTH TCLP CAPACITORS	5.10
1318	11/21/91	SEWER SAMPLE	AQUA N.D.
1319	12-2-91	OIL "A" - CDE - GROUND TEST - H.V. TRANS - MWL	LYCOT 14.81 ppm
1320	12-2-91	OIL "B" - CDE - DC SUPPLY (CLEAN)	LYCOT N.D.
1321	12-2-91	OIL "C" - CDE - H.V. AC EXCITOR	LYCOT N.D.
1322	12-2-91	OIL "D" - CDE - H.V. AC REACTOR	LYCOT N.D.
1323	12-4-91	NORTH -	2.75
1324	12-4-91	SOUTH -	4.75
1325	12-4-91	HADLEY -	2.33
1326	12-4-91	YARD -	2.05
1327	1-14-92	NORTH	
1328	1-14-92	SOUTH	
1329	2-3-92	SUMP PCB'S 1F4B	4,500
1330	2-5-92	SUMP VOLITALS 1F4B	
1331	2-12-92	SEWER SAMPLE - PCB'S	6.6
1332	2-12-92	- OIL & GREASE	7
1333	2-12-92	- ROD (110) TSS (43) pH (8.2)	
1334	3/13/92	Water Cooling Tower - PCB'S	N.D.
1335	3/18/92	" " " PCB'S	2.9 ppm
1336	3/18/92	" " " DIL & GREASE	30 mg/L
1337	4/3/92	" " " PCB'S	3 ppm
1338	4/5/92	300 HP Compressor (oil)	N/O
1339	4/14/92	POLY P DIRTY	N.D.
1340		POLY P CLEAN	N.D.
1341		92-39 (MIB) CLEAN	N.D.
1342		CASTOR OIL CLEAN	N.D.
1343		MINERAL OIL CLEAN	N.D.
1344		92-30 (DOP) CLEAN	N.D.

345	4-14-92	DOP RAW	⑥ #5	N.O.
1346		POLY B - COMPOSIT	⑥ #4	N.O.
1347		POLY B	⑥ #3	5.6
1348		POLY B	⑥ #2	5.4
1349		POLY B	⑥ #1	8.8
1350		POLY B	4 #1	20.0
1351	4-17	SEWER SAMPLE		5.0
1352	4-17	WATER COOLING TOWER		N.O.
1353	5-13-92	SEWER SAMPLE	SPLIT - AQUATECA 2.6	
1354	5-13-92	" " (PACK IN HOUSE)	SPLIT - LYCOTT	
1355	5-8-92	NORTH TROUGH	LYCOTT	18.4
1356	5-8-92	SOUTH TROUGH	LYCOTT	23.3
1357	5-8-92	YARD DRAIN	LYCOTT	27
1358	5-20-92	OIL/WATER SEPARATOR	OUTFALL LYCOTT	604
1359	5-20-92	RTE TRANSFORMER	LYCOTT	N/A
1360	8-14	NORTH TROUGH	LYCOTT	4.85
1361	8-14	SOUTH TROUGH	LYCOTT	.57
1362	8-18	NORTH	LYCOTT	6.75
1363	8-18	SOUTH	LYCOTT	0.94
1364	8-18	YARD	LYCOTT	6.25
1365	8-18	AQUANET RIVER	LYCOTT	1.91
1366	8-25	SUMP 1M6A	"	342.50
1367	8-25	WATER COOLING TOWER	"	10.50
1368	8-26-92	SEWER WATER PCB	AQUATECA	188
1369	"	SEWER WATER OIL & GREASE		<5
1370	"	SEWER WATER BOD77 TSS59 PH 7.9	LYCOTT	3.56
1371	9-14-92	NORTH TROUGH	"	.92
1372	"	SOUTH TROUGH	"	43.1
1373	9-22-92	NORTH TROUGH	"	4.54
1374	"	SOUTH TROUGH	"	1.72
1375	"	WATER COOLING TOWER	"	3.58
1376	"	AQUANET RIVER	EAST CERTIFIED (A)	43 PPM
1377	9-30-92	SHIPPING CONCRETE FLOOR	C CERTIFIED (B)	145 PPM
1378	"		WEST CERTIFIED (C)	214 PPM
1379	"			

1380	10-6-92	Sewer Water Sample	68.0
1381	11-23-92	"	15.7
1382	11-24-92	CONCRETE SHIPPING EAST	8.5
1383	11-24-92	" " WEST	3.3
1384	12-4-92	NORTH	1.15
1385	12-4-92	SOUTH	.53
1386	12-4-92	YARD	16.71
1387	12-4-92	HAGLEY	2.13
1388	12-11-92	NORTH	7.67
1389	12-11-92	SOUTH	0.98
1390	12-11-92	YARD	2.76
1391	12-11-92 1-7-93	NORTH	
1392	1-7-93	SOUTH	
1393	1-7-93	YARD	
1394	1-7-93	HAGLEY	
1395	1-12-93	Sewer Water Sample	LYCOTT 19.13
1396	1-15-93	N	
1397	1-15-93	S	
1398	1-15-93	Y	
1399	1-15-93	#	
1400	2-2-93	SALT SEWER Water Sample	AQUA - 7.10
1401	2-2-93	" " "	LYCOTT - 2.52
1402	2-5-93	Water Sewer - CITY TOOK SAMPLE	" - N.D.
1403	2-26-93	EPA QA DMR ANALYSIS	
1404	6/5/93	CONCRETE TANK ROOM FLOOR #1	SALT 725 ppm
1405	6/9/93	WASTE WATER - SANITARY	PCB LYCOTT 2.13
		PH, BOD, TSS, OIL & GREASE, TPO	LYCOTT
1406	6/9/93	WASTE WATER SANITARY	AQUATIC # 7.06
1407	8/12/93	SOIL GREASE ABOVE THE SUPERFICIAL	- 13.8 ppm
1408	8/12/93	SOIL BOD (21 mg/l) TSS (66) ppm PH (8.3)	
1409	8/12/93	SEWER PCB ANALYSIS	LYCOTT 219118
* 1410	8/18/93	SEWER BOD	21 mg/l 219 ppm
1411	11/9/93	COMPRESSOR ROOM #1	(P.C.B.) 263 ppm
1412	11/9/93	MACHINE SHOP (P.C.B.)	500 ppm
1413	11/9/93	HYDRA OIL FILTER MED. (P.C.B.)	27.50

ID	Date	Location / Description	Method	Result
1414	11/9/93	M.I.P.B. System 9239 Filter Med. (P.C.B.)	PCB	237.00
1415	11/9/93	#4 Filtering System med. (P.C.B.)	PCB	88 PPM
1416	11/9/93	Compressor Room #2 (P.C.B.)	PCB	128 PPM
1417	11/9/93	TANK ROOM #2 (P.C.B.)	PCB	5.09 PPM
1418	11/9/93	BALSTON FILTERS (P.C.B.)	PCB	72.8 PPM
1419	11/9/93	D.P. & M.I.P.B. System (P.C.B.)	PCB	N.O.
1420	11/4/93	NORTH TROUGH	PCB LYCOTT	4.34
1421	11/4/93	SOUTH TROUGH	PCB	N.O.
1422	11/4/93	YARD	PCB	2.74
1423	11/4/93	HADLEY ST.	PCB	2.84
1424	11/19/93	SANITARY WASTE WATER	PCB LYCOTT	N.O.
1425	11-19-93	NORTH TROUGH	PCB	5.60
1426	11-19-93	SOUTH TROUGH	PCB	1.38
1427	11-19-93	YARD DRAIN	PCB	2.90
1428	11-22-93	HOUSHNET RIVER NORTH		16.88
1429	11-22-93	CENTER		19.06
1430	11-22-93	SOUTH		23.07
1431	11-30-93	ACUSHNET RIVER NORTH		
1432	11-30-93	CENTER		
1433	11-30-93	SOUTH		
1434	12-6-93	ACUSHNET RIVER NORTH		
1435	12-6	CENTER		
1436	12-6	SOUTH		
1437	3-4-94	NORTH TROUGH		5.24
1438	3-4-94	SOUTH TROUGH (1)		.95
1439	3-4-94	SOUTH TROUGH (2)		2.63
1440	3-4-94	RIVER		.75
1441	3-8-94	SEWER SAMPLE	LYCOTT	318 PPB
1442	4-8-94	SEWER SAMPLE	LYCOTT	1 PPB
1443	4-8-94	COOLING WATER TOWER		60.6 PPB
1444	6-7-94	SWW	NET	17 PPB
1445	6-7-94	SWW	NET	6.6 PPB
1446	6-14-94	SANITARY WASTE WATER	PCB, PORTS, SOY	PCB-18.6 PPB SOY-87 PPB PORTS-60.0 PPM
1447	6-14-94	SANITARY WASTE WATER WITH 1 ML SOY	CILABRAC	21 PPM
1448	6-14-94	SANITARY WASTE WATER 3-VIALS	TTD	SEE RESULTS
1449	6-28-94	CELLAR COMP. OIL		51.9 PPM

SEE LAB 528

ID	Date	Description	Agency	Value / Unit	Notes
1450	6-28-94	Water Cooling Tower	NET	N.D.	
1451	7-21-94	Sanitary Wastewater	NET	17.1	
1452	7-21-94	Sanitary Wastewater	Lycott	25.4	
1453	8-24-94	Sanitary Wastewater	Lycott	109.7	
1454	8-24-94	" " " "	-GAVE TO CITY	N.D.	
1455	8-24-94	Sanitary Wastewater	NET	90	
1456	8-25-94	Water Cooling Tower	NET	N.D.	2
1457	9-22-94	Sanitary Wastewater	Lycott	17.0	
1458	9-22-94	Sanitary	N.E.T.	16.4	6.5
1459	9-22-94	Sanitary	CITY	-	5.3
1460	9-22-94	PAINT SOLIDS - 3rd FL. Booth	Lycott	48.1 mg	7
1461	9-22-94	PAINT SOLIDS - 3rd FL Booth	N.E.T.	216 PPM	5.6
1462	10-04-94	Sanitary (SAMPLE TAKEN BY CITY)	NET	5.8 PPM	7
1463	10-4-94	Sanitary (SAMPLE TAKEN BY CITY)	Lycott	5.8 PPM	10
1464	10-4-94	Sanitary " " " "	CITY	44 PPM	4
1465	11-30-94	Sanitary	Lycott	PCB 48 TSS PH	7
1466	11-30-94	Sanitary	"	0 + G BOO	1
1467	11-30-94	Sanitary	GAVE TO CITY	5.93	7
1468	12-21-94	Sanitary	Lycott	19.48 PPM	5
1469	12-21-94	Sanitary	GAVE TO CITY	12.00	3
1470	12-21-94	GROUND WATER (IN FRONT OF MPPZWC) DUST COLLECTOR	Lycott	12.84 PPM	
1471	1-19-95	Sanitary	NET	10.7 PPM	1
1472	1-19-95	Sanitary	NET	-	
1473	1-19-95	Sanitary	GAVE TO CITY	12.590	
1474	2-23-95	Sanitary	Lycott	6.8 PPM	7
1475	2-23-95	Sanitary	NET	-	
1476	2-23-95	Sanitary	GAVE TO CITY	4.180	
1477	3-29-95	Sanitary NOTE CITY TOOK SAMPLE	Lycott	6.30 PPM	
1478	3-29-95	Sanitary	CITY	-	
1479	4-19-85	Sanitary	Lycott	4.49 PPM	
1480	4-19-95	Sanitary	CITY	-	
1481	5-24-95	Sanitary Ret sample	-	6.51	
1482	5-25-95	Sanitary Reg. Sample	-	3.22	
1483	6-22-95	Sanitary	Lycott	13.84	
1484	6-22-95	Sanitary	PCB - 0 + G - P.D.L. TPO - SEE LAB	-	

PH-7.21, TSS-40, POC-105, TPO-SEE LAB

485	SANITARY	7-27-95		4.43
1486	W.C.T.	7-27-95		N.D.
1487	N. TROUGH	8-2-95		4.07
1488	S. TROUGH	8-2-95		101.8
1489	SANITARY	8-31-95		7.31
1490	9-15-95	SANITARY (SAMPLE TAKEN BY CITY)		12.12
1491	10-19-95	WATER SAMPLES FOR PCB ANALYSIS	PH, TSS, BOD, SURFACIC ACID, PCB	21.70
1492	11-8-95	WASTE WATER SAMPLE - 625-608	FOR PCB ANALYSIS	9.63
1493	11-8-95	RAIN WATER NORTH TROUGH	FOR PCB ANALYSIS	6.33
1494	11-8-95	RAIN WATER SOUTH TROUGH	FOR PCB ANALYSIS	3.97
1495	11-8-95	PUMP OIL STORAGE TANK #1	FOR PCB ANALYSIS	25.6
1496	11-8-95	PUMP OIL STORAGE TANK #2	FOR PCB ANALYSIS	26.7
1497	11-8-95	PUMP OIL STORAGE TANK #3	FOR PCB ANALYSIS	29.0
1498	11-8-95	PUMP OIL STORAGE TANK #4	FOR PCB ANALYSIS	30.4
1499	11-8-95	PUMP OIL STORAGE TANK #5	FOR PCB ANALYSIS	24.7
1500	11-8-95	PUMP OIL STORAGE TANK #6	FOR PCB ANALYSIS	24.9
1501	12-19-95	WATER SAMPLES FOR ANALYSIS (SANITARY)		7.27
1502	1-18-96	SANITARY WASTEWATER FOR ANALYSIS (PCB)		25.5
1503	1-19-96	SANITARY WASTEWATER FOR ANALYSIS (PCB)		13.3
1504	2-27-96	SANITARY WASTEWATER FOR ANALYSIS (PCB)	LYCOTT (BROKE)	N.D.
1505	2-27-96	SANITARY	PCB ALPHA	7.10
1506	2-28-96	NORTH TROUGH	PCB	3.10
1507	2-28-96	SOUTH TROUGH	PCB	4.20
1508	2-28-96	YARD	PCB	1.10
1509	2-28-96	HADLEY	PCB LYCOTT	7.60
1510	2-14-96	SANITARY	PCB ALPHA	N.D.
1511	2-14-96	SANITARY	PCB LYCOTT	9.00
1512	2-15-96	SANITARY	PCB ALPHA	N.D.
1513	2-15-96	SANITARY	PCB ALPHA	N.D.
1514	3-22-96	SANITARY (SAMPLE BY CITY-SPLIT)	PCB ALPHA	N.D.
1515	3-25-96	FLOOR WASH WATER (OUTSIDE OR TANK ROOM)	PCB ALPHA	170.000
1516	4-24-96	SANITARY	PCB ANALYSIS	N.D.
1517	5-22-96	SANITARY	BOD TSS	7.7
1518	5-22-96	SANITARY	PH	
1519	5-22-96	SANITARY	OIL & GREASE	

1520	6-14-96	SANITARY
1521	7-30-96	SANITARY
1522	8-13-96	NORTH
1523	8-13-96	SOUTH
1524	8-13-96	YARD
1525	8-13-96	HADLEY
1526	8-14-96	SANITARY
1527	9-25-96	NORTH
1528	9-20-96	SOUTH
1529	9-20-96	YARD
1530	9-27-96	SANITARY
1531	10-3-96	SANITARY
1532	10-31-96	SANITARY
1533	11-22-96	SANITARY
1534	11-22-96	SANITARY
1535	11-22-96	SANITARY
1536	12-5-96	SANITARY
1537	1-8-97	SANITARY
1538	2-7-97	SANITARY
1539	2-13-97	SANITARY
1540	3-18-97	SANITARY
1541	4-13-97	SANITARY 4/23
1542	5-	SANITARY
1543		SANITARY
1544		SANITARY
1545	5/23/97	SANITARY

5 (BY JPLIT CITY) 6.4 (INCH GAP)

PCB	ALPHA	N.D.
PCB	ALPHA	N.D.
PCB	ALPHA	7.5
		N.D.
		24
		N.D.
		9.3
PCB	ALPHA	N.D.
		N.D.
		9.1
		3.9
		15.8
		5.5
PCB		N.D.
BOD, 73	TSS, 33	pH 7.4
OIL & GREASE		10
PCB	ALPHA	N.D.
PCB	ALPHA	10.0
PCB	ALPHA	N.D.
PCB	ALPHA	N.D.
PCB	ALPHA	N.D.
PCB	ALPHA	10.0
PCB	ALPHA	
BOD	TSS	pH
OIL & GREASE		
PCB	ALPHA	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173-3185

*Mariahna
M. H.*

DATE: June 25, 1997
SUBJ: Analysis of PCBs in Soils - AEROVOX
FROM: Peter ^{Rep} Philbrook, Investigations and Analysis, Chemistry Section
THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist
TO: Marianne Milette *WJA 4/26/97*

PROJECT NUMBER: 97257

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the chain of custody SOP (G-2, Rev 3, 1/93, DCN: CH-001/88).

EPA Region 1 Procedure: Polychlorinated Biphenyls in Soil Samples, Mid Level Method, PCBSOML5.SOP. The modules used for this procedure were: XL 2020 Heat Systems Sonicator, SONICAT2.MOD, Chlorinated Pesticides and PCB Screening, 8500EC1.MOD, 5880 Gas Chromatographs, 5880EC2.MOD.

Results are reported out in dry weight.

Date Samples Received by the Laboratory: 05/29/97

Date Analysis Started: 06/03/97

cc:

File: J:\CHEMISTRY\REPORTS\PCB-PEST\97257SO.PCB



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60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. One method blank was included in the analysis.
2. Each sample was spiked with the surrogate compounds, tetrachloroxylene and decachlorobiphenyl, at approximately 0.2 mg/Kg. The results for the surrogate recoveries are reported out with each sample.
3. One sample, SO3A, was spiked as a matrix spike with Aroclor-1260 at approximately 1.0 mg/Kg. The recovery is listed below.

PCB	Recovery (%)	QC Range (%)
Aroclor 1260	114	46 - 153

SAMPLES ANALYZED: SO3A, SO3A MS, BLANK

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Bill Andrade

Holding time meet (Y/N): Yes
Extraction (Water - 7 days, Soil - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems:

Surrogate recoveries for TCX Tetrachloroethylene could not be determined due to a large interfering peak eluting at the same retention time as the TCX.

Additional comments: None

FACILITY SAMPLED: AEROVOX
 US ENVIRONMENTAL PROTECTION AGENCY
 REGION I LABORATORY
 Polychlorinated Biphenyls

SAMPLE NO.: S03A
 DATE OF COLLECTION: 05/29/97 Matrix: Soil
 DATE OF EXTRACTION: 06/03/97 Final Volume: 5 mL
 DATE OF ANALYSIS: 06/11/97 Percent Moisture: 33
 DRY WEIGHT EXTRACTED: 2.02 Extract Dilution: None
 WET WEIGHT EXTRACTED: 3.04 Report Factor: 1.5

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.26	
11104-28-2	Aroclor-1221	ND	0.26	
11141-16-5	Aroclor-1232	ND	0.26	
53469-21-9	Aroclor-1242	ND	0.26	
12672-29-6	Aroclor-1248	ND	0.26	
11097-69-1	Aroclor-1254	ND	0.26	
11096-82-5	Aroclor-1260	ND	0.26	
11100-14-4	Aroclor-1262	ND	0.26	
37324-23-5	Aroclor-1268	ND	0.26	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	77
2,4,5,6-Tetrachloro-m-xylene	NA

Notes:

- RL = Reporting level
- ND = None detected
- ~ = Approximate
- < = Less than
- > = Greater than
- NA = Not applicable due to high sample dilutions or sample interferences
- E = Estimated value exceeds the calibration range
- L = Estimated value is below the calibration range
- B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.
- P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
- D = Detected but too low to quantitate.
- C = The identification has been confirmed by GC/MS.

FACILITY SAMPLED: AEROVOX

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: BLANK

DATE OF COLLECTION: 05/29/97
DATE OF EXTRACTION: 06/03/97
DATE OF ANALYSIS: 06/11/97
DRY WEIGHT EXTRACTED: 3.02 g
WET WEIGHT EXTRACTED: 3.02 g

Matrix: Soil
Final Volume: 5 mL
Percent Moisture: 0
Dilution Factor: None
Report Factor: 1.0

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.17	
11104-28-2	Aroclor-1221	ND	0.17	
11141-16-5	Aroclor-1232	ND	0.17	
53469-21-9	Aroclor-1242	ND	0.17	
12672-29-6	Aroclor-1248	ND	0.17	
11097-69-1	Aroclor-1254	ND	0.17	
11096-82-5	Aroclor-1260	ND	0.17	
11100-14-4	Aroclor-1262	ND	0.17	
37324-23-5	Aroclor-1268	ND	0.17	

Sample Recovery for
Surrogate Compound:

Observed
Recoveries (%)

Decachlorobiphenyl	74
2,4,5,6-Tetrachloro-m-xylene	78



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173-3185

*Marianne Milette
6/10/97*

DATE: June 25, 1997
SUBJ: Polychlorinated Biphenyl Analysis in Transformer Fluid and Waste Oils -
AEROVOX
FROM: Peter ^{Rep} Philbrook, Chemistry Section
THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist
TO: Marianne Milette *WJA 6/26/97*

PROJECT NUMBER: 97257

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the chain of custody SOP (G-2, Rev 3, 1/93, DCN: CH-001/88).

EPA Region 1 Procedure: Medium Level Polychlorinated Biphenyls (PCBs) in Oil Samples, PCBOIML1.SOP. The module used for this procedure was Chlorinated Pesticides and PCB Analysis on HP5880, 5880EC2.MOD

Date(s) Samples Received by the Laboratory: 05/29/97

Date Analysis Started: 06/03/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\97257OI.PCB



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60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. One method blank was included in the analysis.
2. Each sample was spiked with the surrogate compounds, tetrachloroethylene and decachlorobiphenyl at approximately 10 mg/Kg. The recoveries are reported out with the data.
3. One sample, SO2A MS, was spiked with Aroclor-1260 at approximately 60 mg/Kg. The recovery is listed below.

PCB	Recovery (%)
Aroclor-1260	107

4. One QC sample USEPA #4460 WP1186 PCBs in transformer oil, was analyzed. The results are listed below.

Aroclor	True Value	Found	QC Range	Recovery (%)
1260	45 mg/Kg	37.5	28.7 - 55.9	83

SAMPLE(S) ANALYZED: SO2A, SO2A MS, BLANK

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Bill Andrade

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems:

Low recoveries were observed in Blank.

Additional comments: None

FACILITY SAMPLED: AEROVOX

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: SO2A

DATE SAMPLED: 05/29/97

DATE EXTRACTED: 06/03/97

DATE ANALYZED: 06/11/97

AMOUNT EXTRACTED: 0.1430 g

Matrix: Oil
Final Volume: 10 mL
Dilution: None
Report Factor: 0.7

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	7.0	
11104-28-2	Aroclor-1221	ND	7.0	
11141-16-5	Aroclor-1232	ND	7.0	
53469-21-9	Aroclor-1242	ND	7.0	
12672-29-6	Aroclor-1248	ND	7.0	
11097-69-1	Aroclor-1254	ND	7.0	
11096-82-5	Aroclor-1260	ND	7.0	
11100-14-4	Aroclor-1262	ND	7.0	
37324-23-5	Aroclor-1268	ND	7.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	89
2,4,5,6-Tetrachloro-m-xylene	90

Notes:

- RL = Reporting limit
- ND = None detected
- ~ = Approximate
- < = Less than
- > = Greater than
- NA = Not applicable due to sample dilutions or interferences
- E = Estimated value exceeds calibration range
- L = Estimated value is below the calibration range
- B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.
- P = The contamination value exceeded 35% difference and is less than 100%. The lower value is reported.
- D = Detected but too low to quantitate.
- C = The identification has been confirmed by GC/MS.

FACILITY SAMPLED: AEROVOX

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: BLANK

DATE SAMPLED: Not Applicable

DATE EXTRACTED: 06/03/97

DATE ANALYZED: 06/11/97

AMOUNT EXTRACTED: Not Applicable

Matrix:

Oil

Final Volume:

10 mL

Dilution:

None

Report Factor:

1.0

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	10	
11104-28-2	Aroclor-1221	ND	10	
11141-16-5	Aroclor-1232	ND	10	
53469-21-9	Aroclor-1242	ND	10	
12672-29-6	Aroclor-1248	ND	10	
11097-69-1	Aroclor-1254	ND	10	
11096-82-5	Aroclor-1260	ND	10	
11100-14-4	Aroclor-1262	ND	10	
37324-23-5	Aroclor-1268	ND	10	

Sample Recovery for
Surrogate Compound:

Observed
Recoveries (%)

Decachlorobiphenyl	45
2,4,5,6-Tetrachloro-m-xylene	41