

**REMOVAL PROGRAM
PRELIMINARY ASSESSMENT/
SITE INVESTIGATION REPORT
FOR THE
AEROVOX SITE
NEW BEDFORD, BRISTOL COUNTY, MASSACHUSETTS
2 AUGUST 2007 AND 15 THROUGH 16 AUGUST 2007**

Prepared For:

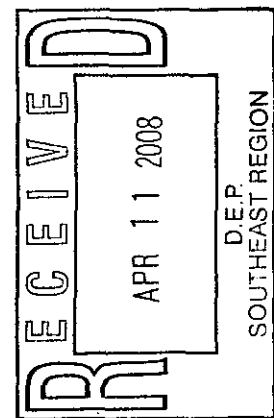
U.S. Environmental Protection Agency
Region I
Emergency Planning and Response Branch
1 Congress Street, Suite 1100
Boston, MA 02114-2023

CONTRACT NO. EP-W-05-042

TDD NO. 01-07-07-0007

TASK NO. 0323

DC NO. R-4868



Submitted By:

Weston Solutions, Inc.
Region I
Superfund Technical Assessment and Response Team III (START)
3 Riverside Drive
Andover, MA 01810

November 2007

TABLE OF CONTENTS

- I. Preliminary Assessment/Site Investigation Forms .
- II. Narrative Chronology
- III. Appendices
 - Appendix A - Figures
 - Appendix B - Tables
 - Appendix C - Photodocumentation Log .

I. Preliminary Assessment/Site Investigation Forms

REMOVAL PRELIMINARY ASSESSMENT

Potential Responsible Parties

Owner: New Bedford Redevelopment Authority **Telephone:**(508) 991-3122

Address:

Operator:

Telephone:()

Address:

Site Access

Authorizing Person: Robert J. Luongo, General Manager

Date: 25 April 2005

Obtained

Verbal

Telephone: (508) 991-3122

Not Obtained

Written

Historical Preservation

Site is Historically Significant or Eligible for Historic Preservation

Contacts Identified

1) **State Historical Preservation Officer (SHPO)**

Name: Brona Simon

Telephone: (617) 727-8470

2) **Tribal Historical Preservation Officer (THPO)**

Name:

Telephone:()

Comments:

Physical Site Characterization

Background Information: The Aerovox site (the site) is located at 740 Belleville Avenue, New Bedford, Massachusetts. The geographic coordinates for the site are 41° 40' 27" north latitude and 70° 55' 13" west longitude. The site is bordered to the north by the Acushnet Rubber Co., to the south by Titleist and Foot Joy Worldwide, to the east by New Bedford Harbor, and to the west by Belleville Avenue.

From 1978 to 2001, Aerovox manufactured electrical capacitors at the site. The approximately 450,000-square-foot plant is a three-floor, flat-roofed brick building. Approximately 17 pounds of mercury has been collected from the on-site building by the USACE. Reportedly, spilled mercury and mercury-containing equipment (electrical switches/equipment, thermometers, ignitrons, and possibly others) remain inside the building.

The first floor of the on-site building was historically used for storage, and the second and third floors were used for capacitor manufacturing. All use of PCB-contaminated oil occurred prior to 1978, before Aerovox owned and operated the facility. The eastern end of the site was capped in 2004 as part of previous removal activities.

REMOVAL PRELIMINARY ASSESSMENT

Physical Site Characterization (Continued)

During summer 1982, soil on the eastern portion of the site was sampled and determined to contain soil contaminated with PCBs exceeding 50 parts per million (ppm). The area was capped in the fall of 1983, and a sheet pile cutoff wall was installed to serve as a seawall for New Bedford Harbor.

On 29 May 1997, EPA conducted a routine inspection of the plant for compliance with the Toxic Substances Control Act (TSCA). During the inspection, U.S. Environmental Protection Agency (EPA) representatives observed heavy oil staining in several areas, including the impregnation tank room and a nearby capacitor degreasing room. EPA reviewed the Aerovox analytical data on site and discovered that there were concentrations of PCBs in several wastestreams up to 170 ppm.

On 25 and 26 June 1997, EPA inspectors collected 20 wood floor shavings samples from the impregnation tank room. Analytical results indicated that the wood shavings contained PCB concentrations between 1,180 and 31,000 ppm.

In October 1997, Aerovox conducted sampling in the plant by collecting 93 standard wipe samples for PCB analysis. The analytical results of the wipe samples indicated widespread PCB contamination greater than the TSCA Spill Cleanup Policy standard of 10 micrograms per 100 square centimeters ($\mu\text{g}/100\text{ cm}^2$) within the plant.

In November 1998, Aerovox completed an Engineering Evaluation/Cost Analysis (EE/CA) pursuant to the National Contingency Plan (NCP), 40 Code of Federal Registry (CFR) 300.415 with the intention of performing the cleanup as a non-time critical removal action. Aerovox proposed to demolish the building, leaving the building slab in place, and cap the contaminated soil. EPA agreed with the EE/CA, along with a long-term groundwater monitoring program.

In September 1999, EPA and Aerovox executed an Administrative Order on Consent (AOC) Docket No. RCRA-1-99-0054 pursuant to Section 7003 of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. 6973. Aerovox implemented a protocol to reduce the daily PCB exposure of its employees and relocated to a new facility in New Bedford. A security plan was implemented at the closed facility, and the initial deposit of \$750,000 was made to a trust fund consistent with the terms of the AOC. In early June 2001, before the second payment was made, Aerovox filed for bankruptcy.

EPA's settlement claim was approved in October 2003. EPA received a bankruptcy administrative claim of \$250,000 and approximately \$817,000 from the trust fund that Aerovox previously established pursuant to a RCRA settlement agreement. A general unsecured claim of approximately \$8.2 Million which, when liquidated, will yield a cash payment of approximately \$2.25 Million, will be received at the close of all bankruptcy procedures.

New Bedford Harbor abuts the Aerovox property to the east. The New Bedford Harbor Superfund Site was included on the National Priorities List (NPL) on 8 September 1983, and is an 18,000-acre

REMOVAL PRELIMINARY ASSESSMENT

Physical Site Characterization (Concluded)

urban estuary reaching from the upper Acushnet River into Buzzards Bay. Its sediment is highly contaminated with PCBs and heavy metals. The cleanup plan for New Bedford Harbor calls for the dredging, dewatering, and disposal of PCB-contaminated sediment at an off-site licensed landfill and in three shoreline confined disposal facilities. An estimated 500,000 cubic yards of contaminated sediments is to be dredged. Dredging of the harbor was scheduled to begin in 2004.

Sampling conducted by the PRP has documented the presence of PCB contamination in the rinsewater used to decontaminate various pieces of machinery. The rinsewater data indicated PCB concentrations as high as 170 ppm, and the rinsewater is presently stored in drums staged in the shipping and receiving area of the facility. Other hazardous materials present in the drums include PCB-contaminated personal protective gear, solvents, and acids. In addition, there are some compressed gas cylinders located throughout the facility. The impregnation tank room contains vats with PCB waste residue and PCB contamination throughout the room. The cap on the eastern end of the facility is cracked with vegetation growing within it. The contaminated soil beneath has the potential to be exposed and cause a direct contact threat.

Beginning in May 2004, Weston Solutions, Inc., Superfund Technical Assessment and Response Team (START) and Shaw Environmental & Infrastructure Emergency Rapid Response Services (ERRS) personnel conducted removal activities at the site, which included the collection of asbestos, soil, wipe, and drum samples. As a result, the following wastes were removed from site in November 2004: transformer oil containing PCBs [7,000 pounds (lbs)], solid PCBs [102,550 kilograms (kg)], trichloroethylene [630 gallons (gal)], waste paint (800 lbs), petroleum liquid (3,130 gal), waste oil (55 gal), oily solids and oil-based paint (1,100 lbs), diphenylmethane diisocyanate (5 lbs), methanol/toluene (55 gal), waste aerosols (200 lbs), tertiary amine (1,800 lbs), sodium hydroxide (1,160 gal), isocyanate (15 gal), various flammable liquids (toluene, xylene, methyl ethyl ketone) (1,000 lbs), petroleum distillates and acetone (220 gal), latex paint (2,000 lbs); smaller quantities (\leq 10 gal) of sodium cyanide, sodium hypochlorite, ethyl ether, phosphorus pentoxide, triethylamine, and polyethylene polyamine; and thousands of pounds of various "non DOT, non RCRA regulated material" contained in drums. The majority of drums and contamination found was located on the first floor of the on-site building. Analytical results of air cartridges worn by ERRS personnel during removal activities were non-detect for asbestos.

Description of Substances Possibly Present, Known or Alleged: There are reported mercury sources within the building, as well as asbestos pipe wrapping.

Existing Analytical Data

(X) Real-Time Monitoring Data: USACE personnel and their contractors, Jacobs Engineering, recently performed mercury screening in limited areas of the interior of the building, including the boiler room, the oil storage room, and the metal framing room, using Dräger colorimetric tubes. No

REMOVAL PRELIMINARY ASSESSMENT

Existing Analytical Data (Concluded)

mercury readings at or greater than 0.05 mg/m³ were recorded, which is the NIOSH REL and the detection limit of the Drager tubes. Jacobs also noted the presence of mold, as well as potential asbestos in pipe wrappings located throughout the investigated areas. On 2 August 2007, EPA On-Scene Coordinator (OSC) Ted Bzenas and START SL Mark Hall mobilized to the site and conducted perimeter air monitoring to determine if mercury contamination was present outside of the structure and to assess potential mercury contamination migration routes.

Sampling Data:

Potential Threat

Description of potential hazards to environment and/or population-identify any of the criteria for a Removal Action (from NCP) that may be met by the site under 40 CFR 300.415 [b] [2].

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.
- ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems.
- iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
- iv. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.
- v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
- vi. Threat of fire or explosion.
- vii. The availability of other appropriate federal or state response mechanisms to respond to the release.
- viii. Other situations or factors that may pose threats to public health or welfare or the environment.

Prior Response Activities

PRP STATE FEDERAL OTHER

Brief Description: Sampling conducted by the PRP has documented the presence of PCB contamination in the rinsewater used to decontaminate various pieces of machinery that were previously staged in the building. In May 2004, EPA conducted a removal action at the site to remove the numerous drums and containers of hazardous waste material.

REMOVAL PRELIMINARY ASSESSMENT

Priority for Site Investigation

High Medium Low None

Comments: The parking lot of the site is currently being used for the New Bedford Harbor Superfund site, and there are plans to demolish the building upon proper removal of the mercury sources.

Report Generation

Originator: Alysha Lynch
Affiliation: Weston Solutions (START)
TDD No.: 07-07-0007

Date: 26 October 2007
Telephone: (978) 552-2115
Task No.: 0323-00

REMOVAL SITE INVESTIGATION

Physical Site Characteristics

Parameter	Quantities/Extent
<input type="checkbox"/> Cylinders:	
<input checked="" type="checkbox"/> Drums:	There were various-sized empty drums located throughout the building.
<input type="checkbox"/> Lagoons:	
<input type="checkbox"/> Tanks: <input type="checkbox"/> Above:	
<input type="checkbox"/> Below:	
<input checked="" type="checkbox"/> Asbestos:	There was visible suspected asbestos-containing material (ACM) on boilers and pipes throughout the building.
<input type="checkbox"/> Piles:	
<input type="checkbox"/> Stained Soil:	
<input type="checkbox"/> Sheens:	
<input type="checkbox"/> Stressed Vegetation:	
<input type="checkbox"/> Landfill:	
<input checked="" type="checkbox"/> Population in Vicinity:	There are businesses in operation to the north and south of the site, and there are residential properties to the west of the site.
<input type="checkbox"/> Wells: <input type="checkbox"/> Drinking:	
<input type="checkbox"/> Monitoring:	
<input checked="" type="checkbox"/> Other:	There were visible sources (ignitrons, thermostats, light switch, etc.) of mercury located throughout the building, which were labeled with spray paint with an "Hg".

Physical Site Observations

Approximately 17 pounds of mercury were reported to have been collected from the on-site building by the USACE. Reportedly, spilled mercury and mercury-containing equipment (electrical switches/equipment, thermometers, ignitrons, and possibly others) remain inside the building. In addition, an impregnation tank room located on the first floor is believed to contain vats with PCB waste residue and PCB contamination throughout the room. USACE personnel and their contractor, Jacobs, recently performed mercury screening in alleged hot spots in the interior of the building, including the boiler room, the oil storage room, and the metal framing room, using Drager colorimetric tubes. Also noted was the presence of mold, as well as potential ACM in pipe wrap located throughout the investigated areas.

REMOVAL SITE INVESTIGATION

Field Sampling and Analysis

Matrix/Analytical Parameter	Field Instrumentation				
	CGI/O ₂	RAD	PID	FID	Other
Background Readings:	0.0/20.9%	10-12 µR/hr	0.0	---	*
Air:	0.0/20.9%	10-12 µR/hr	0.0	---	*
Soil:					
Surface:					
Water:					
Tanks:					
Drums:					
Vats:					
Lagoons:					
Spillage:					
Run Off:					
Piles:					
Sediments:					
Groundwater:					
Other:					

* - Mercury air monitoring results can be viewed in *Appendix B – Tables* of the report, entitled *Removal Program Preliminary Assessment/Site Investigation for the Aerovox Site, New Bedford, Bristol County, Massachusetts 1 August 2007 and 15 through 16 August 2007.*

Field Quality Control Procedures

SOP Followed

Deviation From SOP

Comments: START followed the protocol outlined in the document entitled, *Sampling and Analysis Plan for the Aerovox Site, New Bedford, Bristol County, Massachusetts.*

Description of Sampling Conducted

On 2 August 2007, OSC Ted Bzenas and WESTON START member Mark Hall arrived at the site to conduct exterior perimeter mercury vapor screening using the Lumex Mercury Vapor Analyzer (Lumex) and the Jerome Mercury Vapor Analyzer (Jerome). START member Hall conducted a safety and operations meeting, and on-site personnel reviewed and signed the site Health and Safety Plan (HASP). The HASP was prepared as a separate document, entitled *Weston Solutions Inc., Region I START Site Health and Safety Plan (HASP) for the Aerovox Site, 740 Belleville Avenue, New Bedford, Massachusetts, dated August 2007.* The highest reading on the Lumex, 3,222 nanograms per cubic meter (ng/m³), was located on the exterior northern perimeter of the boiler room. There were no readings above background on the Jerome.

REMOVAL SITE INVESTIGATION

Description of Sampling Conducted (Continued)

On 15 August 2007, OSC Wing Chau and START members Mark Hall, Alysha Lynch, Aaron Benoit, Tim Benton, Carolyn Imbres, Bill Mahany, and Keith Wheeler arrived at the site to complete mercury vapor screening using the Lumex and the Jerome in the interior of the building. START personnel established a support zone and calibrated air monitoring instruments including a Lumex; a Jerome; a combustible gas indicator/oxygen meter (MultiRAE); and a radiation meter (MicroR). Background levels were recorded in the HASP as follows: Lumex = 10 ng/m³; Jerome = 0.000 micrograms per cubic meter (µg/m³); photoionization detector (PID) = 0.0 units; lower explosive limit (LEL) = 0%; oxygen (O₂) = 21.1%; and MicroR = 11 microRoentgens per hour (µR/hr). START member Hall conducted a safety and operations meeting, and on-site personnel reviewed and signed the site HASP.

START members Hall and Benton entered the building with Jacobs personnel and conducted an initial air monitoring screening with the MultiRAE and a radiation meter on all floors of the building. There were no readings above background on the instruments. Once the initial air monitoring screening was completed, START personnel prepared the Lumex and the Jerome instruments in anticipation of the initial entries. The scope of work was to conduct screening of the second and third floor of the building by creating a 30-foot grid system on each floor, and collecting a reading at the center point of the grid using the Lumex. While the Lumex screening was being conducted, one START member used the Jerome to screen equipment on the floor as well as any suspected mercury locations. If the Lumex confirmed readings above 50,000 ng/m³, the Jerome was used to screen the area for further confirmation. The highest readings on the Lumex, 7,430 ng/m³ and 542 ng/m³, were located on the second floor and third floor, respectively. The 7,430 ng/m³ reading was recorded from a broken thermometer located on the second floor. There were no readings above background on the Jerome.

On 16 August 2007, OSC Chau and START members Hall, Lynch, Benoit, Benton, Imbres, Mahany, and Wheeler arrived at the site to complete mercury vapor screening using the Lumex and the Jerome in the first floor of the building. START personnel established a support zone and calibrated air monitoring instruments. The scope of work was to conduct screening of the first floor of the building by creating a 30-foot grid system and/or a 20-foot grid system, where debris was difficult to move around, and collecting a reading at the center point of the grid using the Lumex. While the Lumex screening was being conducted, one START member used the Jerome to screen equipment on the floor as well as any suspected mercury locations. If the Lumex confirmed readings above 50,000 ng/m³, the Jerome was used to screen the area for further confirmation. There were areas that were blocked off by Jacobs personnel and considered to be structurally unsafe to conduct mercury screening. These areas included the two storage rooms and Lab No. 2 as labeled on the map provided to START; therefore, START did not screen those specific areas. The highest readings on the Lumex, 4,470 ng/m³, and 13,780 ng/m³ were located near the paint line storage area and the ignition located in the stockroom, respectively. START members Hall and Benton photodocumented site conditions and recorded any areas of suspected mercury.

REMOVAL SITE INVESTIGATION

Description of Sampling Conducted (Concluded)

At the completion of the first floor screening, START members Hall and Benoit conducted a mercury screening in the boiler room and adjacent areas. The highest reading collected from the boiler room was greater than 50,000 ng/m³ on the Lumex and 0.17 µg/m³ on the Jerome. START member Hall photodocumented site activities.

Analyses

Analytical Parameter	Media	Laboratory
<input type="checkbox"/> VOC	<input checked="" type="checkbox"/> AMBIENT AIR	<input type="checkbox"/> NERL
<input type="checkbox"/> PCB	<input type="checkbox"/> WATER	<input type="checkbox"/> CLP
<input type="checkbox"/> PESTICIDE	<input type="checkbox"/> SOIL	<input type="checkbox"/> PRIVATE
<input type="checkbox"/> METALS	<input type="checkbox"/> SOURCE	<input type="checkbox"/> SAS
<input type="checkbox"/> CYANIDE	<input type="checkbox"/> SEDIMENT	<input type="checkbox"/> SOW
<input type="checkbox"/> SVOC		<input checked="" type="checkbox"/> FIELD
<input type="checkbox"/> TOXICITY		
<input type="checkbox"/> DIOXIN		
<input type="checkbox"/> ASBESTOS		
<input checked="" type="checkbox"/> OTHER: MERCURY		

Analytical results: Mercury air monitoring results can be viewed in *Appendix B – Tables* of the report, entitled *Removal Program Preliminary Assessment/Site Investigation for the Aerovox Site, New Bedford, Bristol County, Massachusetts 1 August 2007 and 15 through 16 August 2007*.

Receptors

Comments

- Drinking Water
 Private: Municipal:
 Groundwater:
 Unrestricted Access:
 Population in Proximity:

There are businesses in operation to the north and south of the site; and there are residential properties to the west of the site.

- Sensitive Ecosystem:

New Bedford Harbor is located to the east of the site.

- Other:

REMOVAL SITE INVESTIGATION

Additional Procedures for Site Determination

Biological Evaluation

ATSDR

To be determine by the Task Monitor.

Site Determination

Depending on further information, criteria that may be met by the site include 40 CFR 300.415 [b] [2], parts:

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.
 - ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems.
 - iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
 - iv. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.
 - v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
 - vi. Threat of fire or explosion.
 - vii. The availability of other appropriate federal or state response mechanisms to respond to the release.
 - viii. Other situations or factors that may pose threats to public health or welfare or the environment.
-
-

Report Generation

Originator: Alysha Lynch

Date: 26 October 2007

Affiliation: Weston Solutions (START)

Telephone: (978) 552-2115

TDD No.: 07-07-0007

Task No.: 0323

II. Narrative Chronology

Narrative Chronology

Site Description

The Aerovox site (the site) is located at 740 Belleville Avenue, New Bedford, Bristol County, Massachusetts [see Appendix A – Figures: Site Location Map (Figure 1)]. The geographic coordinates for the site are 41° 40' 27" north latitude and 70° 55' 13" west longitude. The site is bordered to the north by the Acushnet Rubber Co. (d/b/a Precix), to the south by Titleist and Foot Joy Worldwide, to the east by New Bedford Harbor, and to the west by Belleville Avenue. The approximately 450,000- square-foot plant is a three-story, brick building [see Appendix A – Figures: Site Diagram (Figure 2)].

From 1978 to 2001, Aerovox Corporation (Aerovox) manufactured electrical capacitors at the site. The first floor of the building was historically used for product storage, and the second and third floors were used in the manufacture of capacitors.

U.S. Army Corps of Engineers (USACE) discovered metallic mercury at various locations in the building. Approximately 17 pounds of mercury have been collected and moved to the boiler room to minimize exposure to the mercury. Reportedly, uncontained mercury and intact mercury-containing equipment (electrical switches/equipment, thermometers, ignitrons, and possibly others) remain inside the building.

USACE personnel and their contractors, Jacobs Engineering, recently performed mercury screening in limited areas of the interior of the building, including the boiler room, the oil storage room, and the metal framing room, using Drager colorimetric tubes. No mercury readings at or greater than 0.05 milligrams per cubic meter (mg/m^3) were recorded, which is the National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL) and the detection limit of the Drager tubes. Jacobs also noted the presence of mold, as well as potential asbestos in pipe wrappings located throughout the investigated areas.

Site History

During summer 1982, the soil on the eastern portion of the site was sampled and determined to contain PCB-contaminated soil exceeding 50 parts per million (ppm). The area was capped during fall 1983, and a sheet pile cutoff wall was installed to serve as a seawall for New Bedford Harbor.

In May 1997, EPA conducted a routine inspection of the plant for compliance with the Toxic Substances Control Act (TSCA). During the inspection, U.S. Environmental Protection Agency (EPA) representatives observed heavy oil staining in several areas, including the impregnation tank room and a nearby capacitor degreasing room. EPA reviewed the Aerovox analytical data on site and discovered that there were concentrations of PCBs up to 170 ppm in several wastestreams.

In June 1997, EPA inspectors collected 20 wood floor shavings samples from the impregnation tank room. Analytical results indicated that the wood shavings contained PCB concentrations between 1,180 ppm and 31,000 ppm.

In October 1997, Aerovox conducted sampling in the plant by collecting 93 standard wipe samples for PCB analysis. The analytical results of the wipe samples indicated widespread PCB contamination within the plant greater than the TSCA Spill Cleanup Policy standard of 10 micrograms per 100 square centimeters ($\mu\text{g}/100\text{cm}^2$).

In November 1998, Aerovox completed an Engineering Evaluation/Cost Analysis (EE/CA) pursuant to the National Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) 300.415 with the intention of performing the cleanup as a non-time critical removal action. Aerovox proposed to demolish the building, leaving the building slab in place, and cap the contaminated soil. EPA agreed with the EE/CA, along with a long term groundwater monitoring program.

In September 1999, EPA and Aerovox executed an Administrative Order on Consent (AOC) Docket No. RCRA-1-99-0054 pursuant to Section 7003 of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. 6973. Aerovox implemented a protocol to reduce the daily PCB exposure of its employees and relocated to a new facility in New Bedford. A security plan was implemented at the closed facility, and an initial deposit of \$750,000 was made to a trust fund consistent with the terms of the AOC. In early June 2001, before the second payment was made, Aerovox filed for bankruptcy.

EPA's settlement claim was approved in October 2003. EPA received a bankruptcy administrative claim of \$250,000 and approximately \$817,000 from the trust fund that Aerovox previously established pursuant to a RCRA settlement agreement. A general unsecured claim of approximately \$8.2 Million which, when liquidated, will yield a cash payment of approximately \$2.25 Million, will be received at the close of all bankruptcy procedures.

New Bedford Harbor abuts the Aerovox property to the east. The New Bedford Harbor Superfund Site was included on the National Priorities List (NPL) on 8 September 1983, and is an 18,000-acre urban estuary reaching from the upper Acushnet River into Buzzards Bay. Its sediment is highly contaminated with PCBs and heavy metals. The cleanup plan for New Bedford Harbor calls for the dredging, dewatering, and disposal of PCB-contaminated sediment at an off-site licensed landfill and in three shoreline confined disposal facilities. An estimated 500,000 cubic yards of contaminated sediments is to be dredged. Dredging of the harbor was scheduled to begin in 2004.

In May 2004, Weston Solutions, Inc., Superfund Technical Assessment and Response Team (START) and Shaw Environmental & Infrastructure Emergency Rapid Response Services (ERRS) personnel conducted removal activities at the site, which included the collection of asbestos, soil, wipe, and drum samples.

USACE recently discovered metallic mercury at various locations in the building. Approximately 17 pounds of mercury had been collected and moved to the boiler room to minimize exposure to the mercury. Reportedly, uncontained mercury and intact mercury-

containing equipment (electrical switches/equipment, thermometers, ignitrons, and possibly others) remain inside the building.

USACE personnel and their contractors, Jacobs Engineering, performed mercury screening in limited areas of the interior of the building, including the boiler room, the oil storage room, and the metal framing room, using Drager colorimetric tubes. No mercury readings at or greater than 0.05 mg/m^3 were recorded, which is the National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL), and the detection limit of the Drager tubes. Jacobs also noted the presence of mold, as well as potential asbestos in pipe wrappings located throughout the investigated areas.

Site Activities

On 2 August 2007, EPA On-Scene Coordinator (OSC) Ted Bzenas and START Site Leader (SL) Mark Hall mobilized to the site and conducted perimeter air monitoring to determine if mercury contamination was present outside of the structure and to assess potential mercury contamination migration routes.

EPA and START personnel established a support zone and calibrated the following air monitoring instruments: Lumex Mercury Vapor Analyzer (Lumex); Jerome Mercury Vapor Analyzer (Jerome); combustible gas indicator/oxygen meter (MultiRAE); and a radiation meter (MicroR). Background levels were recorded in the Health and Safety Plan (HASP) as follows: Lumex = 4 nanograms per cubic meter (ng/m^3); Jerome = 0.000 micrograms per cubic meter ($\mu\text{g/m}^3$); photoionization detector (PID) = 0.0 units; lower explosive limit (LEL) = 0%; oxygen (O_2) = 20.9%; and MicroR = 11 microRoentgens per hour ($\mu\text{R/hr}$).

START member Hall conducted a safety and operations meeting, and on-site personnel reviewed and signed the site Health and Safety Plan (HASP). The HASP was prepared as a separate document, entitled *Weston Solutions Inc., Region I START Site Health and Safety Plan (HASP) for the Aerovox Site, 740 Belleville Avenue, New Bedford, Massachusetts*, dated August 2007. OSC Bzenas and START member Hall initially conducted a field screen for radiation, LEL/ O_2 , and volatile organic compounds (VOCs) prior to mercury vapor screening. OSC Bzenas and START member Hall then conducted mercury vapor screening along the exterior perimeter of the building using the Lumex and Jerome. The highest reading recorded on the Lumex, 3,222 nanograms per cubic meter (ng/m^3), was located on the exterior northern perimeter of the boiler room [see Appendix A – Figures: Site Plan and Exterior Mercury Screening Locations and Results (Figure 2A)]. There were no readings above background on the Jerome.

On 15 August 2007, OSC Wing Chau and START members Mark Hall, Alysha Lynch, Aaron Benoit, Tim Benton, Carolyn Imbres, Bill Mahany, and Keith Wheeler arrived at the site to complete mercury vapor screening in the interior of the building using the Lumex and the Jerome.

START personnel established a support zone and calibrated air monitoring instruments including, a Lumex; a Jerome; a combustible gas indicator/oxygen meter (MultiRAE); and a radiation meter (MicroR). Background levels were recorded in the Health and Safety Plan (HASP) as follows: Lumex = 10 ng/m^3 ; Jerome = $0.000 \mu\text{g/m}^3$; PID = 0.0 units; lower explosive limit (LEL) = 0%; O_2 = 21.1%; and MicroR = 11 $\mu\text{R/hr}$. START member Hall conducted a

safety and operations meeting, and on-site personnel reviewed and signed the site HASP.

START members Hall and Benton entered the building with a Jacobs representative and conducted initial air monitoring on all floors of the building with the MultiRAE and a radiation meter. No readings above background were recorded on the instruments. Once the initial air monitoring screening was completed, START personnel prepared the Lumex and the Jerome instruments in anticipation of the initial entries. The scope of work was to include the screening of the second and third floor of the building by creating a 30-foot grid system on each floor, and collecting a reading at the center point of the grid using the Lumex. While the Lumex screening was being conducted, one START member used the Jerome to screen equipment on the floor as well as any suspected mercury locations [see Appendix A – Figures: Third Floor Mercury Screening Locations (Figure 2B) and Second Floor Mercury Screening Locations (Figure 2C)]. If the Lumex confirmed readings above 50,000 ng/m³ the Jerome was used to screen the area for further confirmation. The highest readings on the Lumex, 542 ng/m³ and 7,430 ng/m³, were located on the third and second floor, respectively [see Appendix B – Tables: Aerovox Field Screening Results - Mercury Vapors: Third Floor (Table 1) and Aerovox Field Screening Results - Mercury Vapors: Second Floor (Table 2)]. The 7,430 ng/m³ reading was recorded from a broken thermometer located on the second floor. There were no readings above background on the Jerome. START personnel were advised to avoid two areas located in the southwest corner of the Aerovox building. The areas included the storage area and the south side of the shipping area (including the shipping dock area).

On 16 August 2007, OSC Chau and START members Hall, Lynch, Benoit, Benton, Imbres, Mahany, and Wheeler arrived at the site to complete mercury vapor screening using the Lumex and the Jerome in the first floor of the building. START personnel established a support zone and calibrated air monitoring instruments. The scope of work was to conduct screening of the first floor of the building by creating a 30-foot grid system and/or a 20-foot grid system, where debris was difficult to move around, and collecting a reading at the center point of the grid using the Lumex. While the Lumex screening was being conducted, one START member used the Jerome to screen equipment on the floor as well as any suspected mercury locations [see Appendix A – Figures: First Floor Mercury Screening Locations (Figure 2D)]. If the Lumex confirmed readings above 50,000 ng/m³, the Jerome was used to screen the area for further confirmation. There were areas that were blocked off by Jacobs and considered to be unsafe to screen, which included the two storage rooms and the Lab No. 2 as labeled on the map provided to START; therefore, START did not screen those specific areas. The highest readings on the Lumex, 4,470 ng/m³ and 13,780 ng/m³, were located near the paint line storage area and in the ignitron storage area located in the stockroom, respectively. START members Hall and Benton recorded Lumex readings for areas containing suspected mercury sources [see Appendix A – Figures: Mercury Source Locations (Figure 2E)] and photodocumented site conditions [see Appendix C – Photodocumentation Log and Appendix A – Figures: Photodocumentation Locations (Figure 3)].

At the completion of the first floor screening, START members Hall and Benoit conducted a mercury screening in the boiler room and surrounding areas. The highest reading collected from the boiler room was greater than 50,000 ng/m³ on the Lumex and 0.17 µg/m³ on the Jerome. START member Benton photodocumented site activities.

III. Appendices

Appendix A

Figures

Site Location Map (Figure 1)

Site Diagram (Figure 2)

Site Diagram and Exterior Mercury Screening Locations and Results (Figure 2A)

Third Floor Mercury Screening Locations (Figure 2B)

Second Floor Mercury Screening Locations (Figure 2C)

First Floor Mercury Screening Locations (Figure 2D)

Mercury Source Locations (Figure 2E)

Photodocumentation Locations (Figure 3)

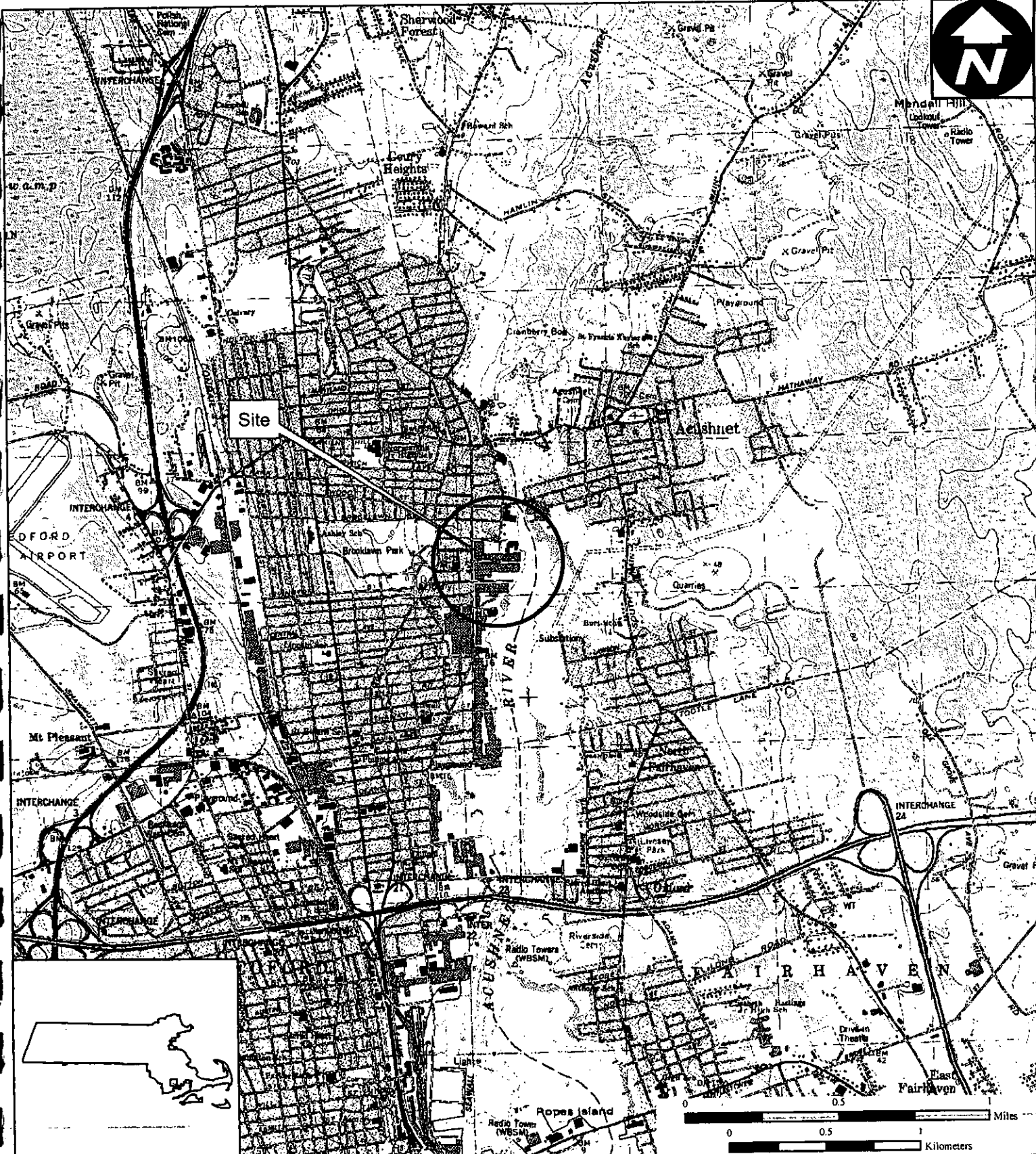


Figure 1

Site Location Map

AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

EPA Region I
Superfund Technical Assessment and
Response Team (START) III
Contract No. EP-W-05-042

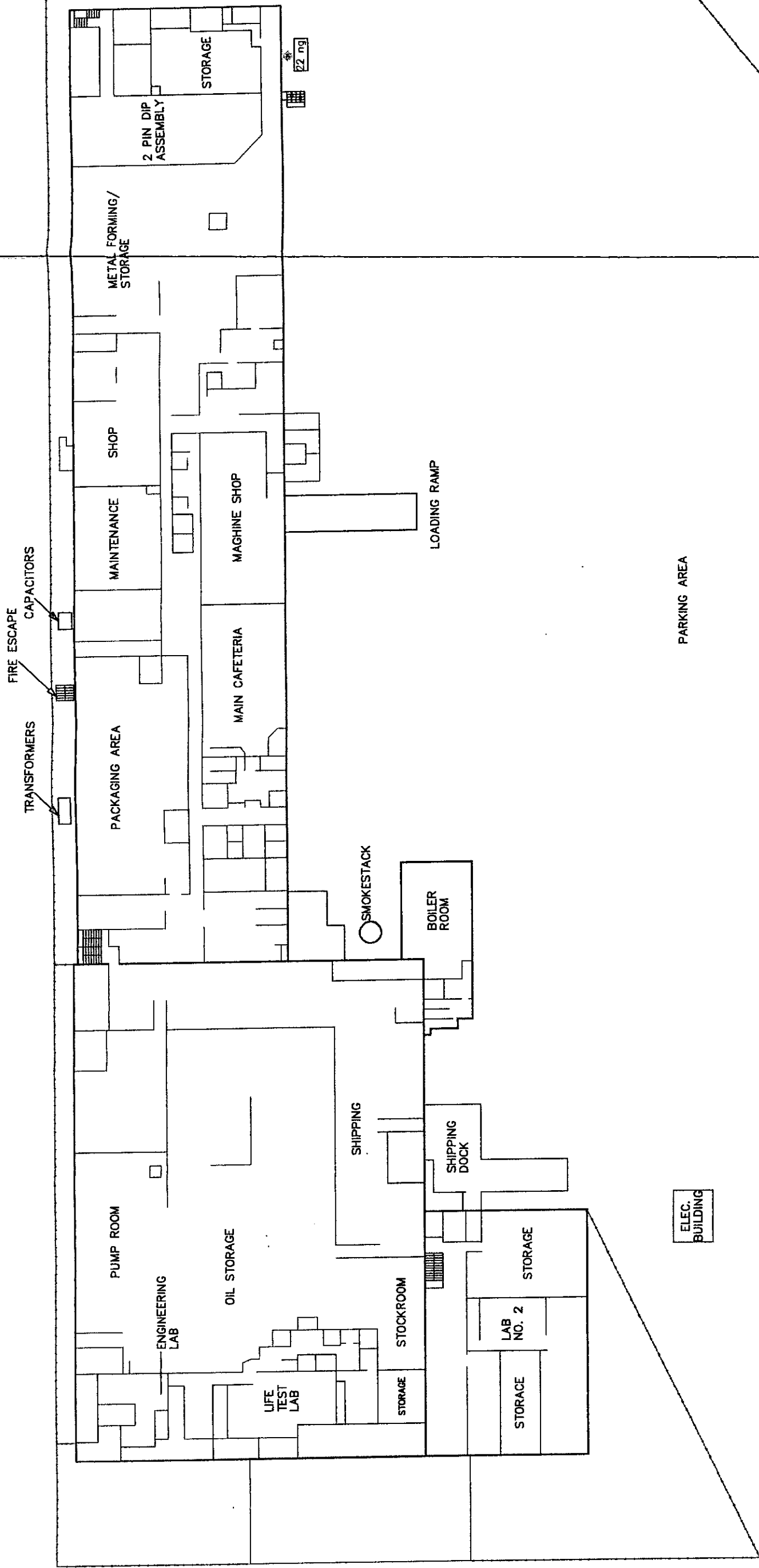
TDD Number: 07-07-0007
 Created by: T. Benton
 Created on: 1 August 2007
 Modified by: M. Hall
 Modified on: 1 August 2007

Data Sources:

Topos: MicroPath/USGS
 Quadrangle Name(s): New Bedford - North, MA
 All other data: START



Restoring Resource Efficiency
 E:\MA_gis\Aerovox\MXD\Figure_1.mxd



SOURCE: AEROVOX
APRIL 2004
NOT TO SCALE



REGION 1 SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
TDD # 01-07-07-0007
DRAWN BY: M. HALL
DATE 8/8/07

FILE NAME: R:\07070007\FIG2_FNL.DWG
FIGURE 2

SITE DIAGRAM

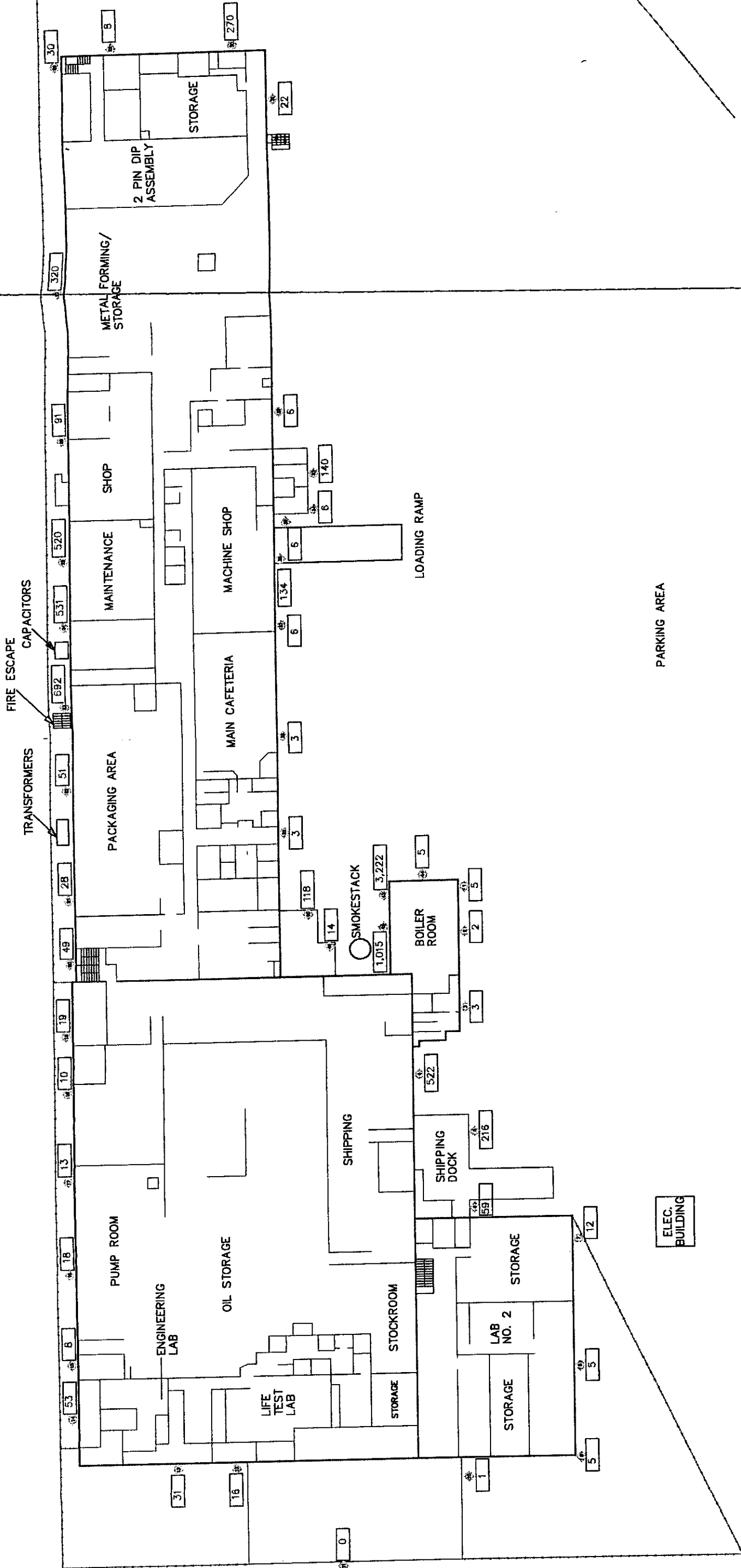
AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

NOTES

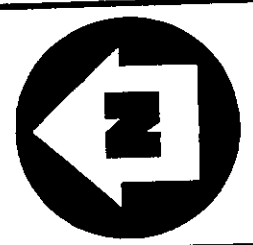
LEGEND

----- FENCING

SECURITY



SOURCE: AEROVOX
APRIL 2004
NOT TO SCALE



WESTON SOLUTIONS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 01-07-07-0007 DRAWN BY: M. HALL DATE 8/8/07

FILE NAME: R:\07070007\FIG2A_FNL.DWG FIGURE 2A

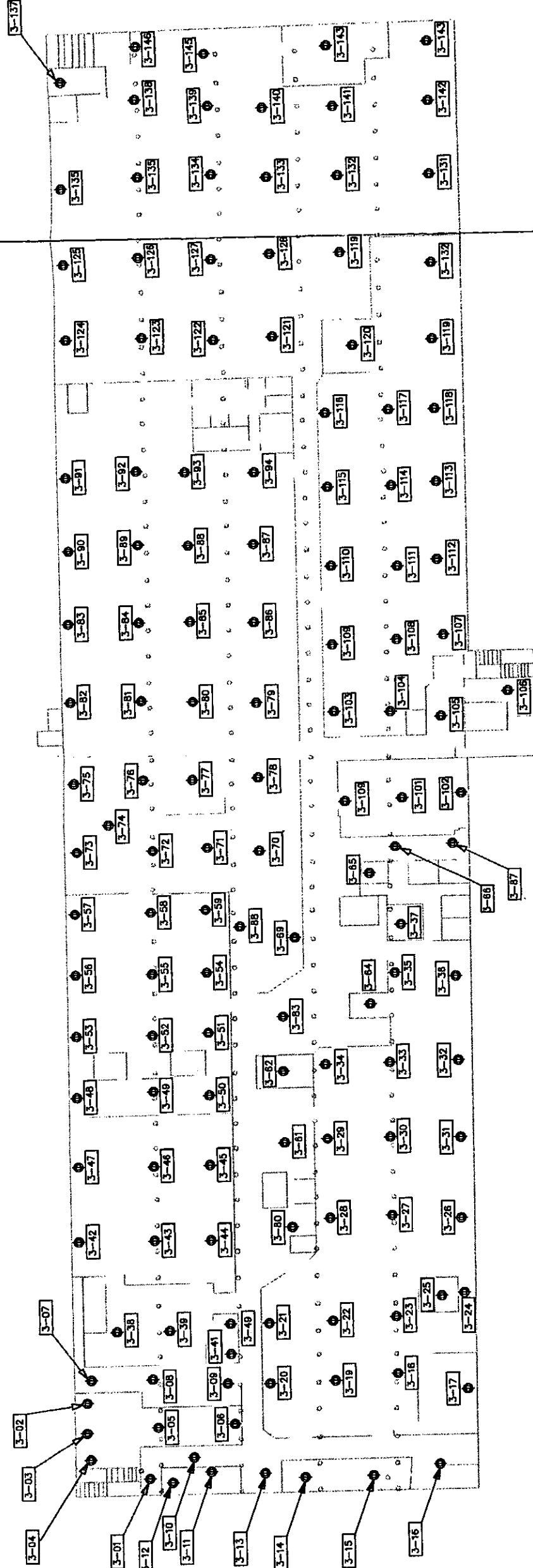
SITE PLAN AND EXTERIOR MERCURY SCREENING LOCATIONS AND RESULTS
AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

LEGEND

— FENCING

⊕ AIR MONITORING LOCATION WITH MERCURY RESULTS IN NANOGRAMS PER CUBIC METER

522



SOURCE: JACOBS ENGINEERING
AEROVOX FACILITY, FIGURE 3
17 JULY 2007
NOT TO SCALE



REGION 1 SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 01-07-07-0007 DRAWN BY: M. HALL DATE 8/18/07

FILE NAME: R:\07070007\FIG2B_FNL.DWG FIGURE 2B

**THIRD FLOOR MERCURY
SCREENING LOCATIONS**

AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

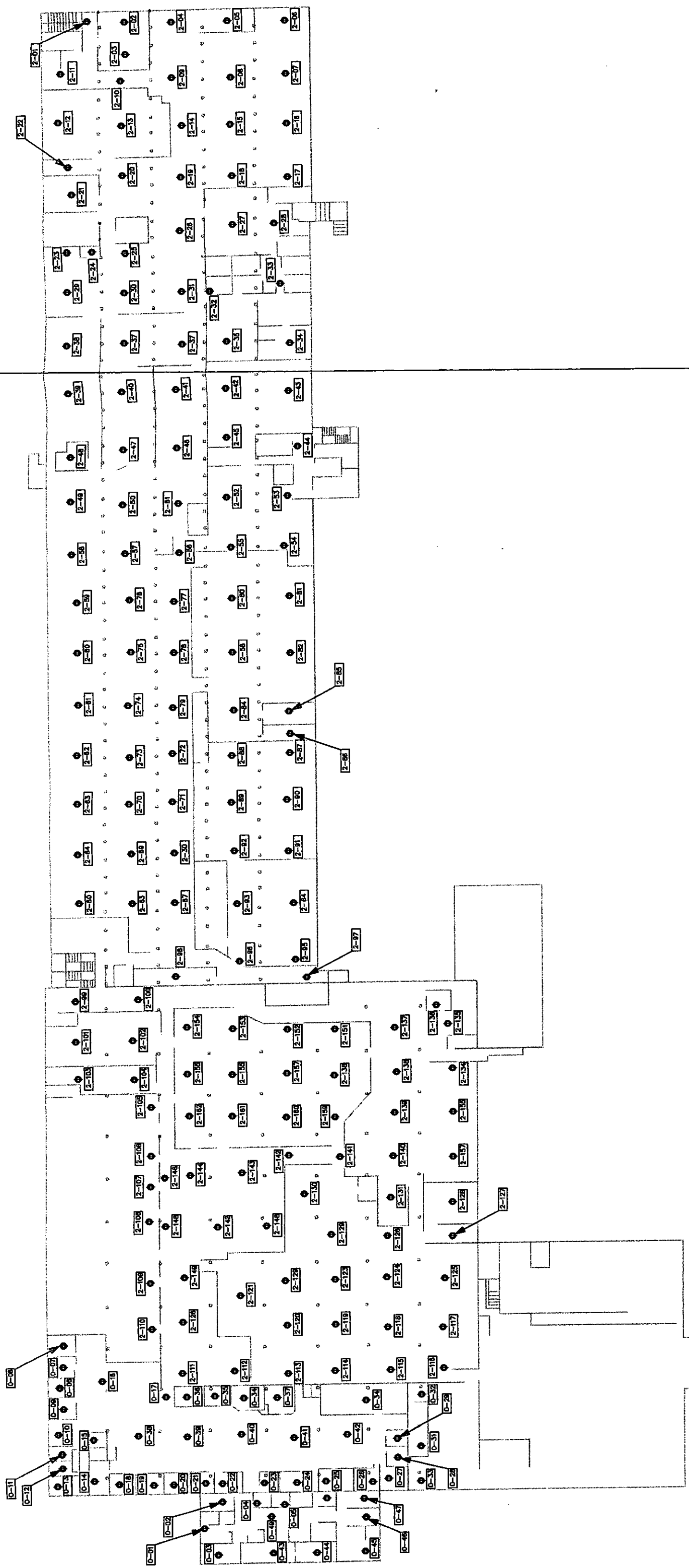
NOTES

LEGEND

● AIR MONITORING LOCATION
(FLOOR LEVEL USING LUMEX 935)

□ STRUCTURAL COMPONENTS





SOURCE: JACOBS ENGINEERING
 AEROVOX FACILITY, FIGURE 3
 17 JULY 2007
 NOT TO SCALE

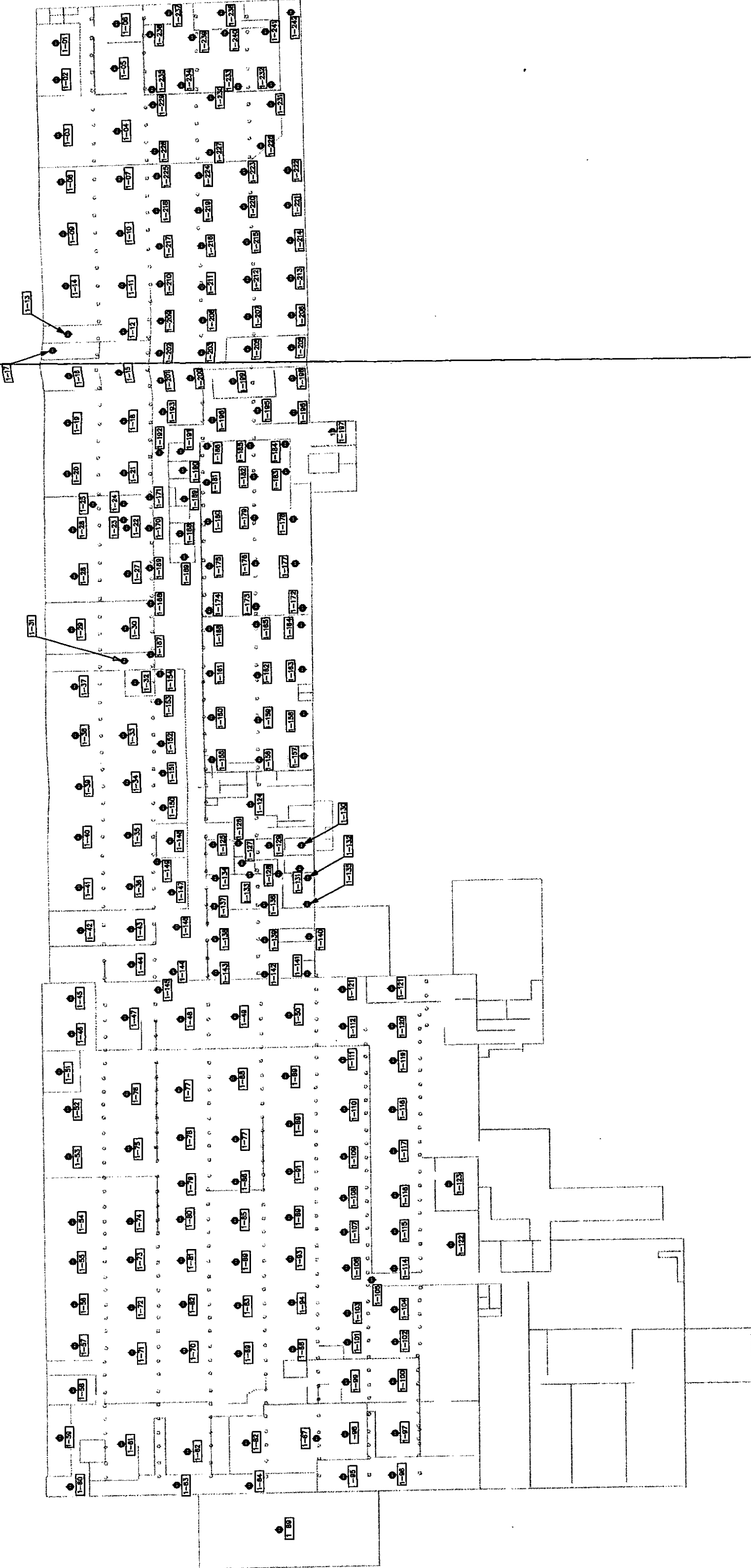


REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 TDD # 01-07-07-0007
 FILE NAME: R:\07070007\FIG2C_FNL.DWG
 DRAWN BY: M. HALL
 DATE: 8/8/07
 FIGURE 2C

**SECOND FLOOR MERCURY
 SCREENING LOCATIONS**
 AEROVOX
 740 BELLEVILLE AVENUE
 NEW BEDFORD, MASSACHUSETTS

NOTES

LEGEND
 AIR MONITORING LOCATION
 (FLOOR LEVEL USING LUMEX 935)
 STRUCTURAL COMPONENTS



SOURCE: JACOBS ENGINEERING
AEROVOX FACILITY, FIGURE 3
17 JULY 2007

NOT TO SCALE



WESTON
SOLUTIONS®

REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 01-07-07-0007
DRAWN BY: M. HALL
DATE 8/27/07

FILE NAME: R:\07070007\FIG2D\FNL.DWG
FIGURE 2D

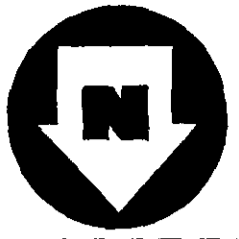
FIRST FLOOR MERCURY
SCREENING LOCATIONS

AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

NOTES

LEGEND

- AIR MONITORING LOCATION
(FLOOR LEVEL USING LUMEX 935)
- STRUCTURAL COMPONENTS



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 01-07-07-0007
 DRAWN BY: M. HALL
 DATE 8/27/07

FILE NAME: R:\07070007\FIG2E\FNL.DWG
 FIGURE 2E

SOURCE: JACOBS ENGINEERING
 AEROVOX FACILITY, FIGURE 3
 17 JULY 2007

NOT TO SCALE

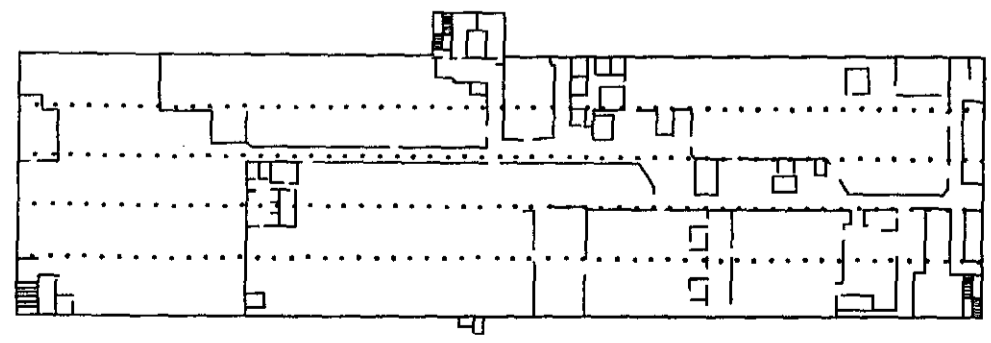
NOTES

MERCURY SOURCE LOCATIONS
 AEROVOX
 740 BELLEVILLE AVENUE
 NEW BEDFORD, MASSACHUSETTS

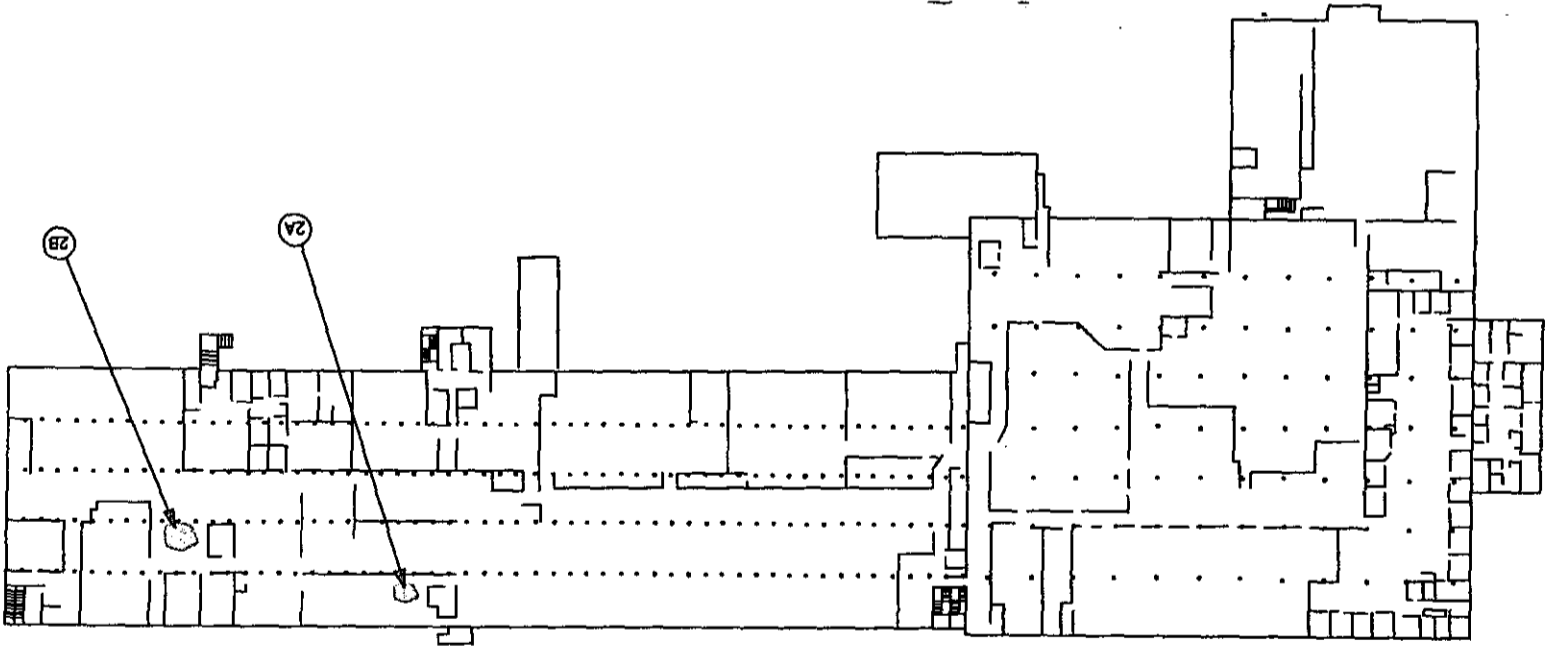
LEGEND

MERCURY SOURCE LOCATIONS

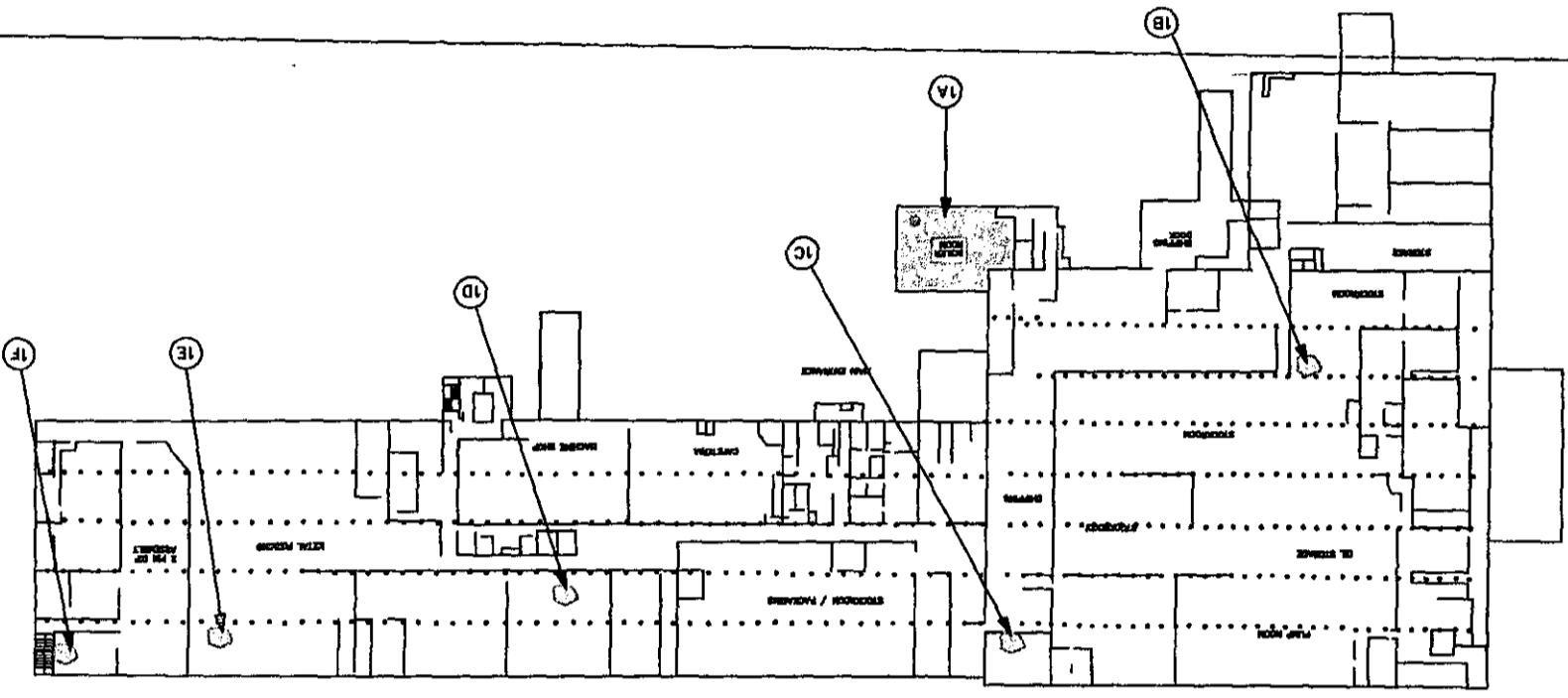
STRUCTURAL COMPONENTS



THIRD STORY FLOOR PLAN

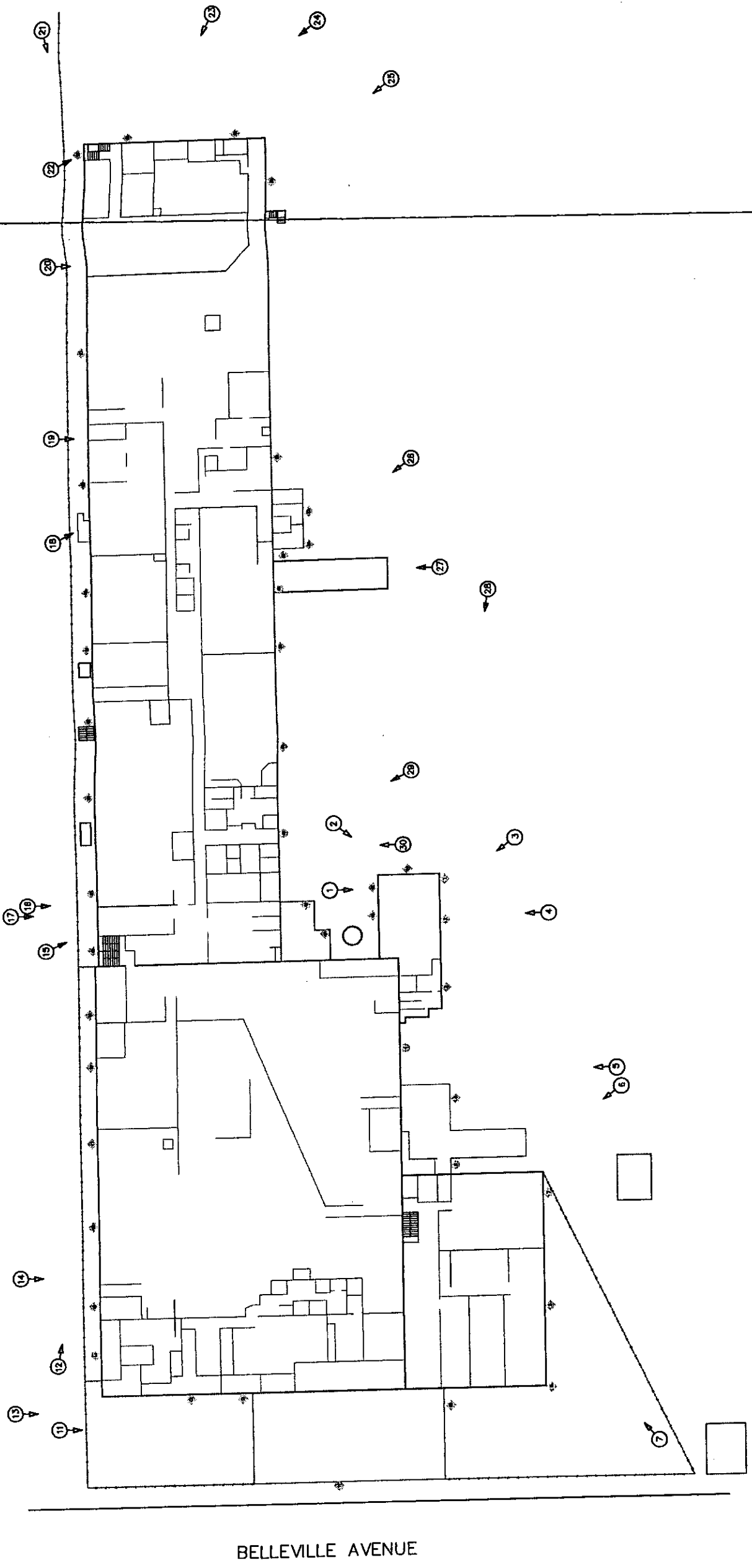


SECOND STORY FLOOR PLAN



FIRST STORY FLOOR PLAN

LOCATION	DESCRIPTION
1A	BOILER ROOM - ELEVATED MERCURY READINGS (>50,000 ng) ON FLOOR AND IN PIPE CHASE.
1B	VISIBLE MERCURY ON PALLET AND FLOOR (FLOOR MARKED WITH SPRAY PAINT).
1C	DISMANTLED IGNITONS & VISIBLE MERCURY ON FLOOR (FLOOR MARKED WITH SPRAY PAINT).
1D	VISIBLE MERCURY IN FLOORING - ELEVATED READINGS (FLOOR MARKED WITH SPRAY PAINT).
1E	LOCATION OF TWO INTACT IGNITONS (EQUIPMENT MARKED WITH SPRAY PAINT).
1F	CARDBOARD BOX ON PALLET CONTAINING BROKEN FLOW METER (FLOOR MARKED WITH SPRAY PAINT).
2A	FORMER LOCATION OF FIBER DRUM - ELEVATED READINGS (FLOOR MARKED WITH SPRAY PAINT).
2B	BROKEN THERMOMETER ON FLOOR - ELEVATED READINGS (FLOOR MARKED WITH SPRAY PAINT).



BELLEVILLE AVENUE

SOURCE: JACOBS ENGINEERING
AEROVOX FACILITY, FIGURE 3
17 JULY 2007

NOT TO SCALE



REGION 1 SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
TDD # 07-07-0007
DRAWN BY: M. HALL
DATE 8/8/07

FILE NAME: R:\07070007\Fig3.DWG
FIGURE 3

PHOTODOCUMENTATION LOCATIONS

AEROVOX
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS

NOTES

LEGEND

- Ⓐ (with arrow) PHOTOGRAPH NUMBER, PHOTOGRAPH ORIGIN, AND PHOTOGRAPH DIRECTION
- FENCING

Appendix B

Tables

Table 1	Aerovox Field Screening Results – Mercury Vapors: Third Floor
Table 2	Aerovox Field Screening Results – Mercury Vapors: Second Floor
Table 3	Aerovox Field Screening Results – Mercury Vapors: First Floor

TABLE 1
Aerovox Field Screening Results - Mercury Vapors: Third Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
3- 1	11	---	---	
3- 2	10	---	---	
3- 3	14	---	---	
3- 4	18	---	---	
3- 5	35	---	---	
3- 6	210	---	---	
3- 7	313	---	---	
3- 8	8	---	---	
3- 9	23	---	---	
3- 10	28	---	---	
3- 11	60	---	---	
3- 12	61	---	---	
3- 13	40	---	---	
3- 14	58	---	---	
3- 15	124	---	---	
3- 16	39	---	---	
3- 17	41	---	---	
3- 18	44	---	---	
3- 19	43	---	---	
3- 20	38	---	---	
3- 21	37	---	---	
3- 22	40	---	---	
3- 23	37	---	---	
3- 24	44	---	---	
3- 25	47	---	---	
3- 26	220	---	---	
3- 27	271	---	---	
3- 28	41	---	---	
3- 29	38	---	---	
3- 30	41	---	---	
3- 31	46	---	---	
3- 32	40	---	---	
3- 33	44	---	---	
3- 34	38	---	---	
3- 35	43	---	---	
3- 36	46	---	---	
3- 37	50	---	---	
3- 38	129	---	---	
3- 39	95	---	---	
3- 40	196	---	---	
3- 41	67	---	---	
3- 42	77	---	---	
3- 43	94	---	---	
3- 44	75	---	---	
3- 45	81	---	---	

TABLE 1
Aerovox Field Screening Results - Mercury Vapors: Third Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
3- 46	74	---	---	
3- 47	72	---	---	
3- 48	68	---	---	
3- 49	65	---	---	
3- 50	72	---	---	
3- 51	52	---	---	
3- 52	57	---	---	
3- 53	56	---	---	
3- 54	49	---	---	
3- 55	58	---	---	
3- 56	43	---	---	
3- 57	52	---	---	
3- 58	54	---	---	
3- 59	109	---	---	
3- 60	75	---	---	
3- 61	49	---	---	
3- 62	43	---	---	
3- 63	50	---	---	
3- 64	48	---	---	
3- 65	69	---	---	
3- 66	71	---	---	
3- 67	70	---	---	
3- 68	70	---	---	
3- 69	50	---	---	
3- 70	51	---	---	
3- 71	45	---	---	
3- 72	38	---	---	
3- 73	46	---	---	
3- 74	37	---	---	
3- 75	49	---	---	
3- 76	50	---	---	
3- 77	50	---	---	
3- 78	58	---	---	
3- 79	61	---	---	
3- 80	67	---	---	
3- 81	78	---	---	
3- 82	68	---	---	
3- 83	64	---	---	
3- 84	56	---	---	
3- 85	48	---	---	
3- 86	65	---	---	
3- 87	40	---	---	
3- 88	27	---	---	
3- 89	33	---	---	
3- 90	39	---	---	

TABLE 1
Aerovox Field Screening Results - Mercury Vapors: Third Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
3- 91	86	---	---	
3- 92	62	---	---	
3- 93	36	---	---	
3- 94	361	---	---	
3- 95	19	---	---	
3- 96	34	---	---	
3- 97	19	---	---	
3- 98	28	---	---	
3- 99	24	---	---	
3- 100	7	---	---	
3- 101	11	---	---	
3- 102	6	---	---	
3- 103	23	---	---	
3- 104	27	---	---	
3- 105	39	---	---	
3- 106	61	---	---	
3- 107	27	---	---	
3- 108	21	---	---	
3- 109	18	---	---	
3- 110	33	---	---	
3- 111	18	---	---	
3- 112	21	---	---	
3- 113	12	---	---	
3- 114	10	---	---	
3- 115	15	---	---	
3- 116	22	---	---	
3- 117	10	---	---	
3- 118	3	---	---	
3- 119	71	---	---	
3- 120	123	---	---	
3- 121	121	---	---	
3- 122	118	---	---	
3- 123	83	---	---	
3- 124	60	---	---	
3- 125	45	---	---	
3- 126	66	---	---	
3- 127	47	---	---	
3- 128	67	---	---	
3- 129	55	---	---	
3- 130	68	---	---	
3- 131	20	---	---	
3- 132	27	---	---	
3- 133	26	---	---	
3- 134	14	---	---	
3- 135	34	---	---	

TABLE 1
Aerovox Field Screening Results - Mercury Vapors: Third Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
3- 136	52	---	---	
3- 137	50	---	---	
3- 138	82	---	---	
3- 139	50	---	---	
3- 140	61	---	---	
3- 141	224	---	---	
3- 142	332	---	---	
3- 143	542	---	---	
3- 144	128	---	---	
3- 145	164	---	---	
3- 146	77	---	---	

ng/m³ = nanograms per cubic meter

Monitoring results exceeding the U. S. EPA Non-Residential Cleanup Goal of 1,300 ng/m³ for mercury are indicated in bold text, along with the monitoring location at which the exceedance was detected.

TABLE 2
Aerovox Field Screening Results - Mercury Vapors: Second Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
2- 1	223	---	---	
2- 2	165	---	---	
2- 3	132	---	---	
2- 4	236	---	---	
2- 5	209	---	---	
2- 6	247	---	---	
2- 7	349	---	---	
2- 8	623	---	---	
2- 9	352	---	---	
2- 10	163	---	---	
2- 11	118	---	---	
2- 12	168	---	---	
2- 13	154	---	---	
2- 14	173	---	---	
2- 15	514	---	---	
2- 16	38	---	---	
2- 17	1112	---	---	
2- 18	799	---	---	
2- 19	923	---	---	
2- 20	7430	---	---	Broken thermometer on floor.
2- 21	973	---	---	
2- 22	423	---	---	
2- 23	163	---	---	
2- 24	5014	---	---	Reading obtained in gap between floorboards.
2- 25	670	---	---	
2- 26	728	---	---	
2- 27	269	---	---	
2- 28	158	---	---	
2- 29	248	---	---	
2- 30	161	---	---	
2- 31	232	---	---	
2- 32	117	---	---	
2- 33	88	---	---	
2- 34	120	---	---	
2- 35	107	---	---	
2- 36	158	---	---	
2- 37	124	---	---	
2- 38	100	---	---	
2- 39	111	---	---	
2- 40	87	---	---	
2- 41	165	---	---	
2- 42	78	---	---	
2- 43	80	---	---	
2- 44	117	---	---	
2- 45	136	---	---	
2- 46	91	---	---	
2- 47	17	---	---	

TABLE 2
Aerovox Field Screening Results - Mercury Vapors: Second Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
2- 48	66	---	---	
2- 49	44	---	---	
2- 50	167	---	---	
2- 51	126	---	---	
2- 52	83	---	---	
2- 53	92	---	---	
2- 54	98	---	---	
2- 55	70	---	---	
2- 56	132	---	---	
2- 57	171	---	---	
2- 58	55	---	---	
2- 59	51	---	---	
2- 60	50	---	---	
2- 61	47	---	---	
2- 62	47	---	---	
2- 63	49	---	---	
2- 64	56	---	---	
2- 65	57	---	---	
2- 66	49	---	---	
2- 67	65	---	---	
2- 68	52	---	---	
2- 69	53	---	---	
2- 70	47	---	---	
2- 71	50	---	---	
2- 72	50	---	---	
2- 73	52	---	---	
2- 74	50	---	---	
2- 75	46	---	---	
2- 76	47	---	---	
2- 77	47	---	---	
2- 78	49	---	---	
2- 79	59	---	---	
2- 80	95	---	---	
2- 81	98	---	---	
2- 82	84	---	---	
2- 83	74	---	---	
2- 84	75	---	---	
2- 85	47	---	---	
2- 86	197	---	---	
2- 87	68	---	---	
2- 88	66	---	---	
2- 89	65	---	---	
2- 90	60	---	---	
2- 91	57	---	---	
2- 92	60	---	---	
2- 93	62	---	---	
2- 94	63	---	---	

TABLE 2
Aerovox Field Screening Results - Mercury Vapors: Second Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
2-95	64	---	---	
2-96	63	---	---	
2-97	6	---	---	
2-98	85	---	---	
2-99	58	---	---	
2-100	58	---	---	
2-101	53	---	---	
2-102	54	---	---	
2-103	1697	---	---	Unexplained - no mercury observed.
2-104	352	---	---	
2-105	111	---	---	
2-106	106	---	---	
2-107	125	---	---	
2-108	171	---	---	
2-109	167	---	---	
2-110	158	---	---	
2-111	91	---	---	
2-112	98	---	---	
2-113	83	---	---	
2-114	75	---	---	
2-115	67	---	---	
2-116	65	---	---	
2-117	61	---	---	
2-118	76	---	---	
2-119	71	---	---	
2-120	79	---	---	
2-121	74	---	---	
2-122	87	---	---	
2-123	77	---	---	
2-124	109	---	---	
2-125	66	---	---	
2-126	80	---	---	
2-127	66	---	---	
2-128	60	---	---	
2-129	75	---	---	
2-130	70	---	---	
2-131	68	---	---	
2-132	61	---	---	
2-133	57	---	---	
2-134	58	---	---	
2-135	50	---	---	
2-136	46	---	---	
2-137	56	---	---	
2-138	67	---	---	
2-139	59	---	---	
2-140	59	---	---	
2-141	63	---	---	

TABLE 2
Aerovox Field Screening Results - Mercury Vapors: Second Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
2- 142	64	---	---	
2- 143	100	---	---	
2- 144	329	---	---	
2- 145	115	---	---	
2- 146	112	---	---	
2- 147	125	---	---	
2- 148	139	---	---	
2- 149	127	---	---	
2- 150	146	---	---	
2- 151	48	---	---	
2- 152	48	---	---	
2- 153	49	---	---	
2- 154	50	---	---	
2- 155	97	---	---	
2- 156	109	---	---	
2- 157	68	---	---	
2- 158	62	---	---	
2- 159	75	---	---	
2- 160	112	---	---	
2- 161	87	---	---	
2- 162	148	---	---	
O- 1	341	---	---	
O- 2	288	---	---	
O- 3	546	---	---	
O- 4	415	---	---	
O- 5	256	---	---	
O- 6	169	---	---	
O- 7	367	---	---	
O- 8	214	---	---	
O- 9	187	---	---	
O- 10	126	---	---	
O- 11	81	---	---	
O- 12	71	---	---	
O- 13	101	---	---	
O- 14	118	---	---	
O- 15	91	---	---	
O- 16	174	---	---	
O- 17	---	---	---	
O- 18	137	---	---	
O- 19	112	---	---	
O- 20	105	---	---	
O- 21	281	---	---	
O- 22	117	---	---	
O- 23	87	---	---	
O- 24	87	---	---	
O- 25	103	---	---	
O- 26	104	---	---	

TABLE 2
Aerovox Field Screening Results - Mercury Vapors: Second Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
O- 27	363	---	---	
O- 28	205	---	---	
O- 29	168	---	---	
O- 30	110	---	---	
O- 31	136	---	---	
O- 32	136	---	---	
O- 33	151	---	---	
O- 34	130	---	---	
O- 35	145	---	---	
O- 36	115	---	---	
O- 37	132	---	---	
O- 38	118	---	---	
O- 39	97	---	---	
O- 40	95	---	---	
O- 41	91	---	---	
O- 42	86	---	---	
O- 43	115	---	---	
O- 44	187	---	---	
O- 45	231	---	---	
O- 46	55	---	---	
O- 47	104	---	---	
O- 48	86	---	---	
O- 49	144	---	---	

ng/m³ = nanograms per cubic meter

Monitoring results exceeding the U. S. EPA Non-Residential Cleanup Goal of 1,300 ng/m³ for mercury are indicated in bold text, along with the monitoring location at which the exceedance was detected.

TABLE 3
Aerovox Field Screening Results - Mercury Vapors: First Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
1-1	8190	---	---	Cardboard box on pallet with flow meter containing mercury.
1-2	6215	---	---	In same room as previous.
1-3	289	---	---	
1-4	222	---	---	
1-5	180	---	---	
1-6	228	---	---	
1-7	71	---	---	
1-8	6	---	---	
1-9	68	---	---	
1-10	67	---	---	
1-11	67	---	---	
1-12	82	---	---	
1-13	178	---	---	
1-14	568	---	---	
1-15	256	---	---	
1-16	239	---	---	
1-17	385	---	---	
1-18	283	---	---	
1-19	286	---	---	
1-20	278	---	---	
1-21	279	---	---	
1-22	497	---	1446	Mercury beads visible on floor.
1-23	---	---	2072	Mercury beads visible on floor.
1-24	412	---	2654	Mercury beads visible on floor.
1-25	---	---	3740	Mercury beads visible on floor.
1-26	1507	---	391	Mercury beads visible on floor.
1-27	1207	---	900	Mercury beads visible on floor.
1-28	922	---	---	
1-29	708	---	---	
1-30	857	---	880	
1-31	560	---	---	
1-32	504	---	---	
1-33	450	---	---	
1-34	433	---	---	
1-35	422	---	---	
1-36	354	---	---	
1-37	138	---	---	
1-38	245	---	---	
1-39	289	---	---	
1-40	339	---	---	
1-41	342	---	---	
1-42	161	---	---	
1-43	239	---	---	
1-44	163	---	---	
1-45	5008	---	4722	Ignitrons on workbench - mercury beads observed.
1-46	2833	---	3168	Ignitrons on workbench - mercury beads observed.
1-47	397	---	---	
1-48	313	---	---	
1-49	196	---	---	
1-50	188	---	---	

TABLE 3
Aerovox Field Screening Results - Mercury Vapors: First Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
1- 51	396	---	---	
1- 52	409	---	---	
1- 53	289	---	---	
1- 54	275	---	---	
1- 55	268	---	---	
1- 56	329	---	---	
1- 57	326	---	---	
1- 58	696	---	---	
1- 59	387	---	---	
1- 60	84	---	---	
1- 61	126	---	---	
1- 62	187	---	---	
1- 63	174	---	---	
1- 64	139	---	---	
1- 65	139	---	---	
1- 66	183	---	---	
1- 67	192	---	---	
1- 68	2335	---	---	
1- 69	254	---	---	
1- 70	253	---	---	
1- 71	239	---	---	
1- 72	258	---	---	
1- 73	229	---	---	
1- 74	259	---	---	
1- 75	234	---	---	
1- 76	711	---	---	
1- 77	234	---	---	
1- 78	265	---	---	
1- 79	320	---	---	
1- 80	331	---	---	
1- 81	247	---	---	
1- 82	256	---	---	
1- 83	277	---	---	
1- 84	585	---	---	
1- 85	429	---	---	
1- 86	314	---	---	
1- 87	216	---	---	
1- 88	23	---	---	
1- 89	426	---	---	
1- 90	91	---	---	
1- 91	1081	---	---	Near several boxes of fluorescent light bulbs.
1- 92	2808	---	---	Near several boxes of fluorescent light bulbs.
1- 93	1145	---	---	
1- 94	622	---	---	
1- 95	255	---	---	
1- 96	263	---	---	
1- 97	23	---	---	
1- 98	248	---	---	
1- 99	220	---	---	
1- 100	1724	---	---	Vicinity of boxed equipment - mercury beads on floor.

TABLE 3
Aerovox Field Screening Results - Mercury Vapors: First Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
1- 101	319	---	---	
1- 102	2666	---	---	Vicinity of boxed equipment - mercury beads on floor.
1- 103	284	---	---	
1- 104	235	---	---	
1- 105	295	---	---	
1- 106	4470	---	---	Vicinity of boxed equipment - mercury beads on floor.
1- 107	1659	---	---	
1- 108	1424	---	---	
1- 109	1515	---	---	
1- 110	829	---	---	
1- 111	574	---	---	
1- 112	290	---	---	
1- 113	261	---	---	
1- 114	218	---	---	
1- 115	242	---	---	
1- 116	247	---	---	
1- 117	351	---	---	
1- 118	407	---	---	
1- 119	379	---	---	
1- 120	240	---	---	
1- 121	295	---	---	
1- 122	225	---	---	
1- 123	186	---	---	
1- 124	169	---	---	
1- 125	95	---	---	
1- 126	89	---	---	
1- 127	75	---	---	
1- 128	84	---	---	
1- 129	97	---	---	
1- 130	111	---	---	
1- 131	95	---	---	
1- 132	181	---	---	
1- 133	96	---	---	
1- 134	126	---	---	
1- 135	76	---	---	
1- 136	74	---	---	
1- 137	69	---	---	
1- 138	89	---	---	
1- 139	64	---	---	
1- 140	99	---	---	
1- 141	140	---	---	
1- 142	112	---	---	
1- 143	106	---	---	
1- 144	156	---	---	
1- 145	152	---	---	
1- 146	199	---	---	
1- 147	195	---	---	
1- 148	173	---	---	
1- 149	198	---	---	
1- 150	210	---	---	

TABLE 3
Aerovox Field Screening Results - Mercury Vapors: First Floor

Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
1- 151	222	---	---	
1- 152	238	---	---	
1- 153	249	---	---	
1- 154	440	---	---	
1- 155	20	---	---	
1- 156	827	---	---	
1- 157	540	---	---	
1- 158	474	---	---	
1- 159	327	---	---	
1- 160	316	---	---	
1- 161	330	---	---	
1- 162	502	---	---	
1- 163	513	---	---	
1- 164	476	---	---	
1- 165	687	---	---	
1- 166	685	---	---	
1- 167	597	---	---	
1- 168	756	---	---	
1- 169	823	---	---	
1- 170	970	---	---	
1- 171	1883	---	---	Outside of entrance to room where mercury beads observed.
1- 172	658	---	---	
1- 173	652	---	---	
1- 174	660	---	---	
1- 175	738	---	---	
1- 176	679	---	---	
1- 177	613	---	---	
1- 178	547	---	---	
1- 179	626	---	---	
1- 180	666	---	---	
1- 181	559	---	---	
1- 182	447	---	---	
1- 183	59	---	---	
1- 184	480	---	---	
1- 185	437	---	---	
1- 186	374	---	---	
1- 187	833	---	---	
1- 188	756	---	---	
1- 189	745	---	---	
1- 190	498	---	---	
1- 191	365	---	---	
1- 192	911	---	---	
1- 193	530	---	---	
1- 194	440	---	---	
1- 195	363	---	---	
1- 196	61	---	---	
1- 197	454	---	---	
1- 198	172	---	---	
1- 199	116	---	---	
1- 200	1542	---	---	Unexplained reading - no source observed.

TABLE 3
Aerovox Field Screening Results - Mercury Vapors: First Floor

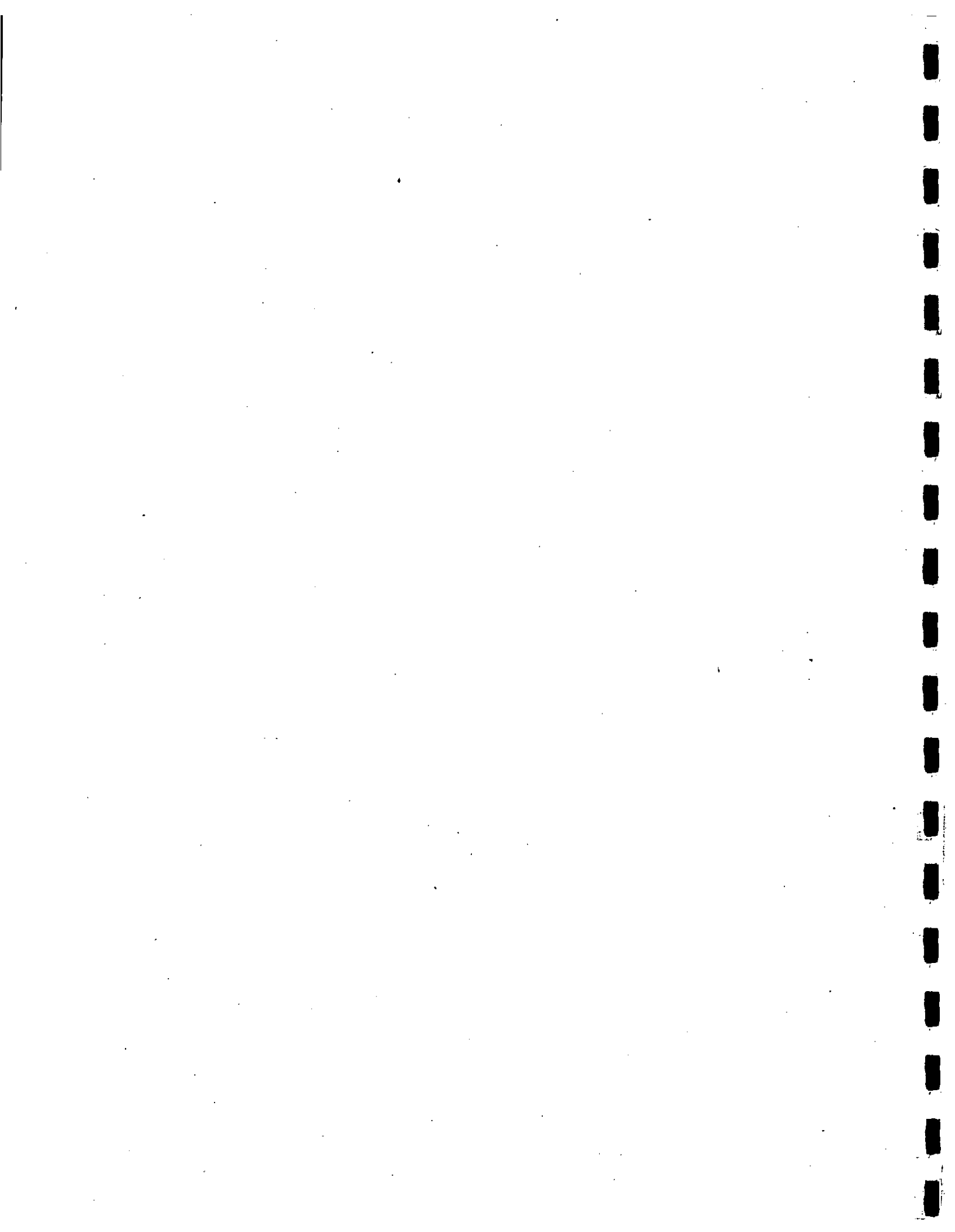
Monitoring Location	Monitoring Result (ng/m ³)			Comments
	Floor	Waist	Breathing Zone	
1- 201	193	---	---	
1- 202	226	---	---	
1- 203	156	---	---	
1- 204	89	---	---	
1- 205	91	---	---	
1- 206	210	---	---	
1- 207	118	---	---	
1- 208	117	---	---	
1- 209	147	---	---	
1- 210	137	---	---	
1- 211	130	---	---	
1- 212	121	---	---	
1- 213	297	---	---	
1- 214	117	---	---	
1- 215	142	---	---	
1- 216	100	---	---	
1- 217	120	---	---	
1- 218	117	---	---	
1- 219	300	---	---	
1- 220	221	---	---	
1- 221	263	---	---	
1- 222	171	---	---	
1- 223	91	---	---	
1- 224	80	---	---	
1- 225	73	---	---	
1- 226	71	---	---	
1- 227	170	---	---	
1- 228	755	---	---	
1- 229	193	---	---	
1- 230	101	---	---	
1- 231	62	---	---	
1- 232	255	---	---	
1- 233	64	---	---	
1- 234	215	---	---	
1- 235	62	---	---	
1- 236	129	---	---	
1- 237	82	---	---	
1- 238	87	---	---	
1- 239	317	---	---	
1- 240	96	---	---	
1- 241	114	---	---	
1- 242	87	---	---	

ng/m³ = nanograms per cubic meter

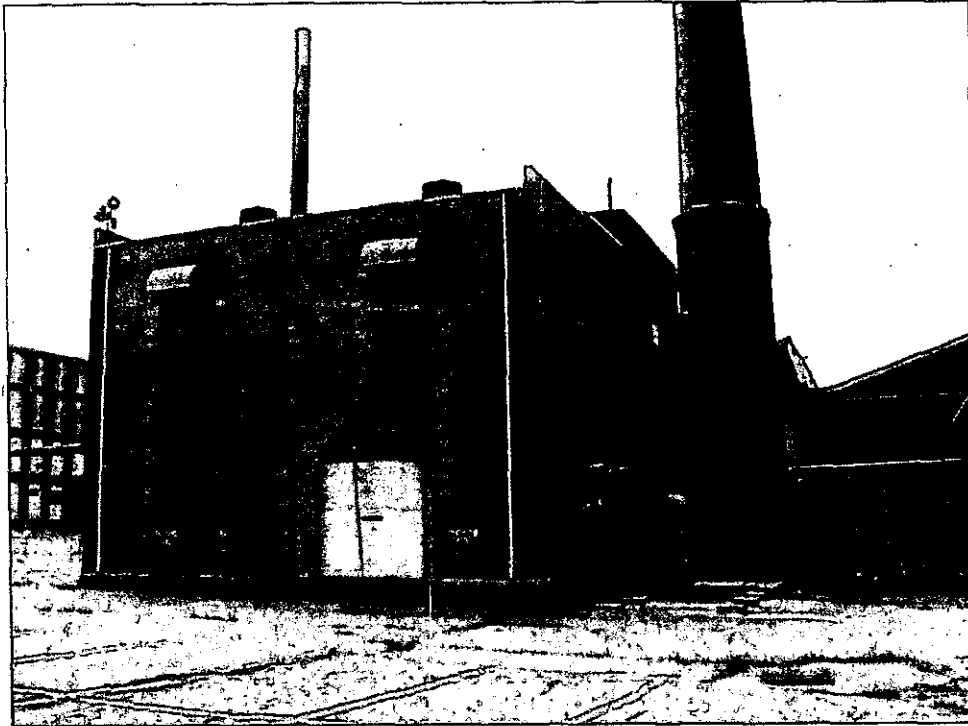
Monitoring results exceeding the U. S. EPA Non-Residential Cleanup Goal of 1,300 ng/m³ for mercury are indicated in bold text, along with the monitoring location at which the exceedance was detected.

Appendix C

Photodocumentation Log



PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

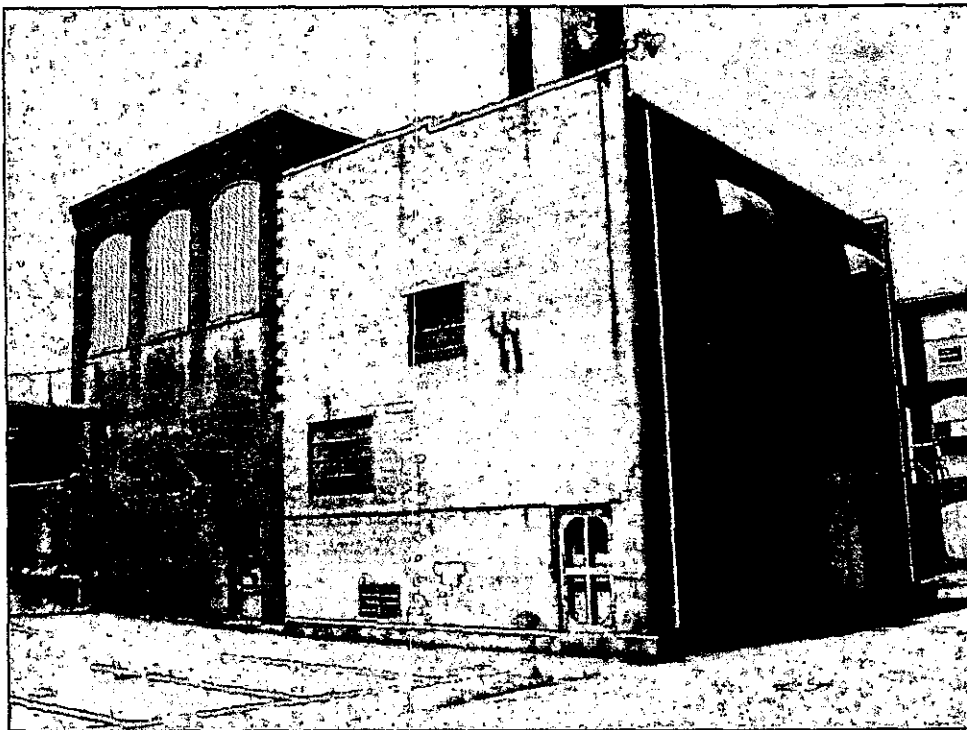


SCENE: View of the Aerovox Boiler Room. Photograph taken facing west.

PHOTOGRAPH NO.: 1 (IMG3501.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenas



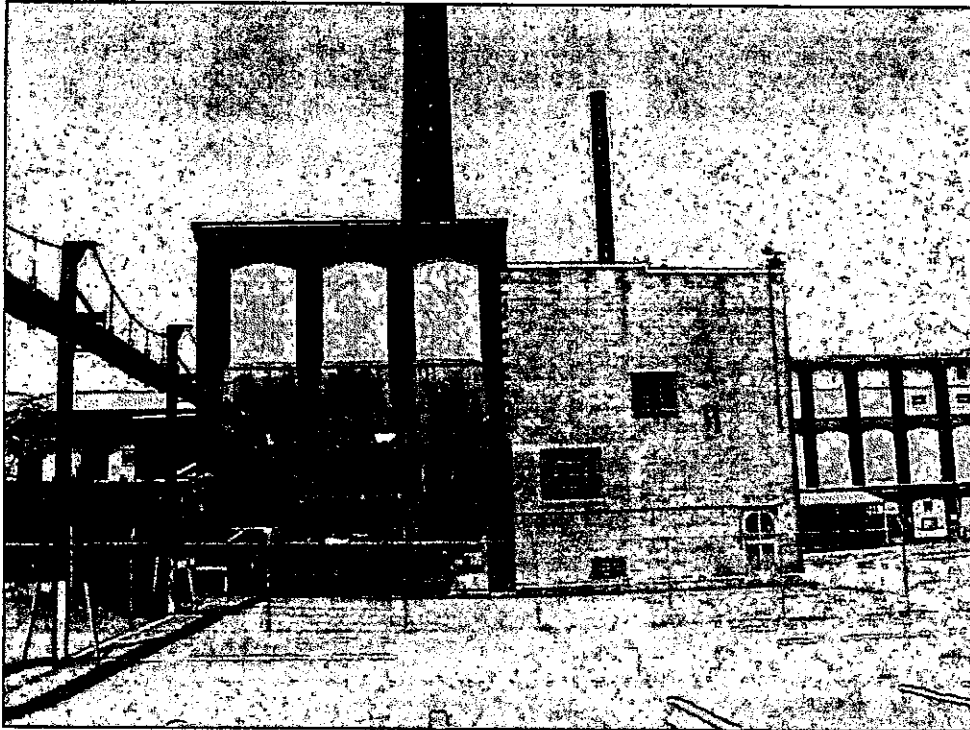
SCENE: View of the Aerovox boiler room building. Photograph taken facing northwest.

PHOTOGRAPH NO.: 2 (IMG3502.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

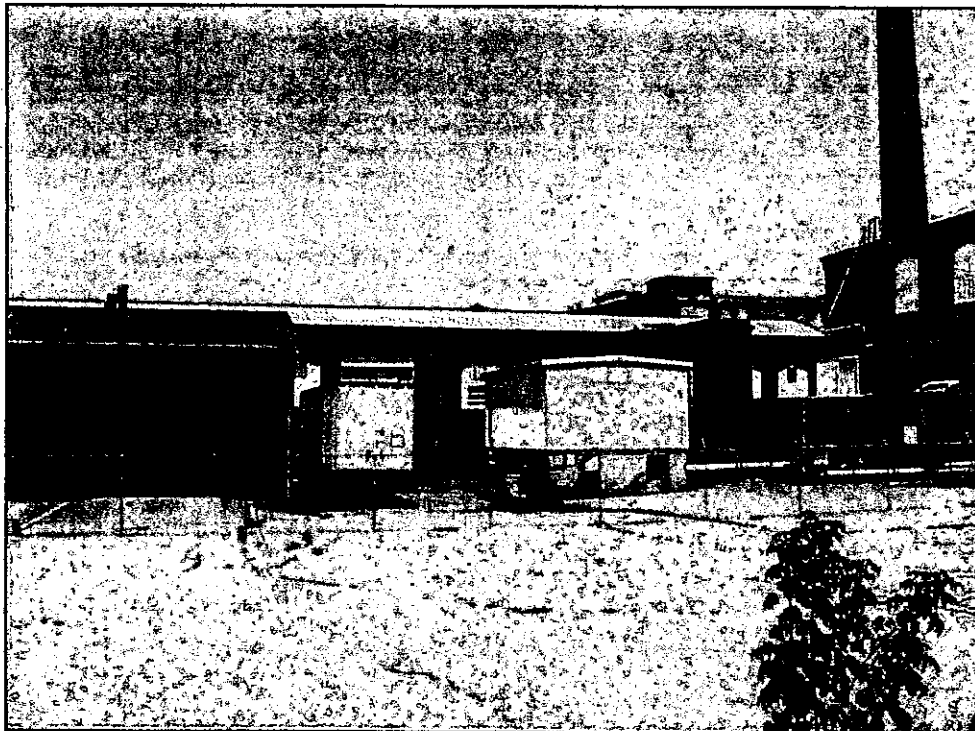


SCENE: View of the Aerovox boiler room building. Photograph taken facing north.

PHOTOGRAPH NO. : 3 (IMG3503.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenias



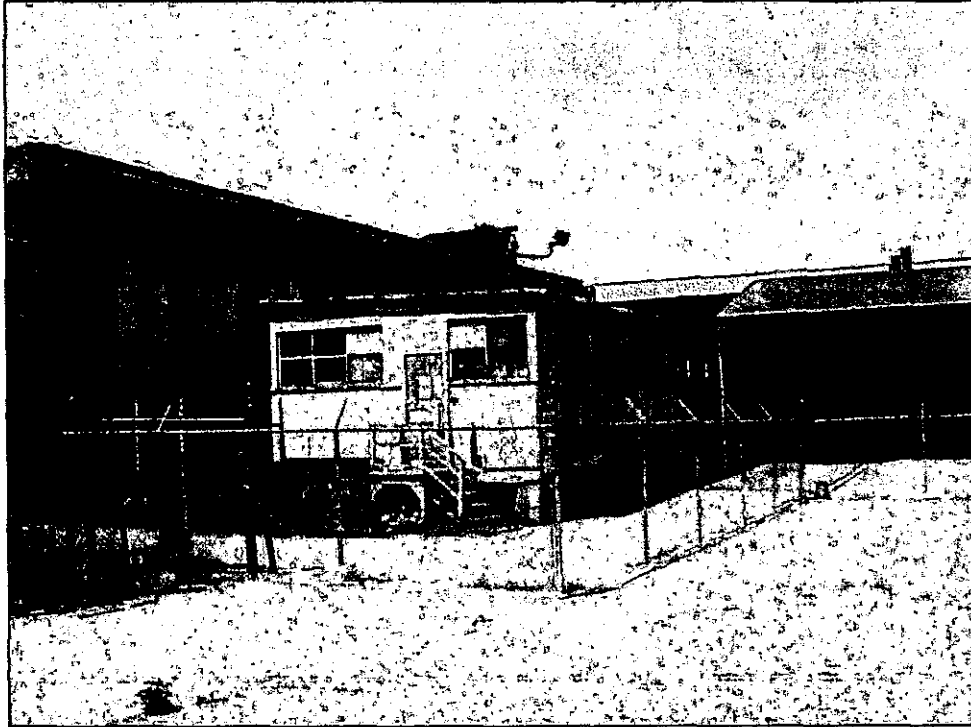
SCENE: View of the Aerovox loading dock area. Photograph taken facing north.

PHOTOGRAPH NO. : 4 (IMG3504.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenias

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

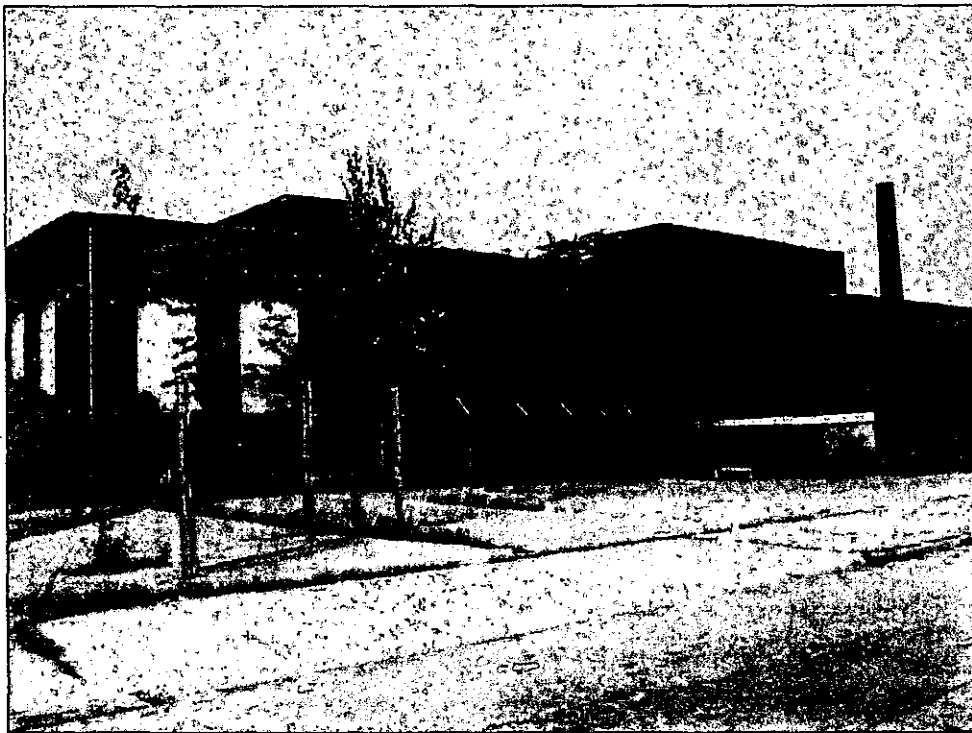


SCENE: View of the Aerovox loading dock area. Photograph taken facing north.

PHOTOGRAPH NO. : 5 (IMG3506.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



SCENE: View of the southwest corner of the Aerovox building. Photograph taken facing northeast.

PHOTOGRAPH NO. : 6 (IMG3509.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

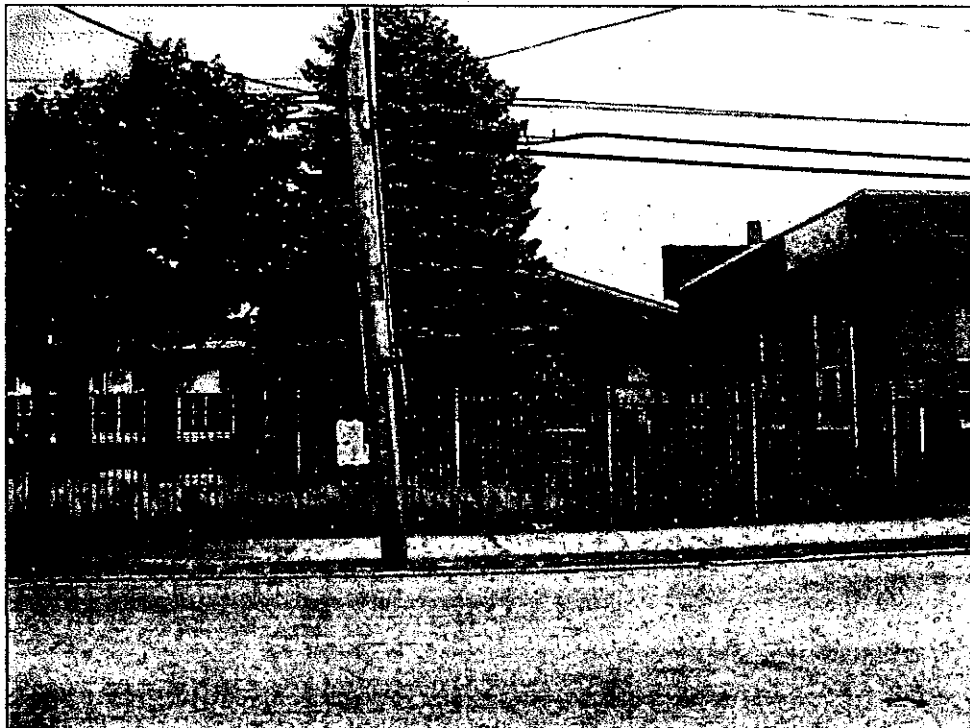


SCENE: View of the southwest corner of the Aerovox property. Photograph taken facing northeast.

PHOTOGRAPH NO. : 7 (IMG3511.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



SCENE: View of the front and northwest corner of the Aerovox building. Photograph taken facing northeast.

PHOTOGRAPH NO. : 8 (IMG3513.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the front (west) entrance of the Aerovox building. Photograph taken facing east.

PHOTOGRAPH NO. : 9 (IMG3512.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



SCENE: View of the northwest corner of the Aerovox building. Photograph taken facing south.

PHOTOGRAPH NO. : 10 (IMG3514.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the northern entrance to the Aerovox building located in the northwestern corner of the building. Photograph taken facing south.

PHOTOGRAPH NO. : 11 (IMG3516.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



SCENE: View of the northern side of the Aerovox building. Photograph taken facing southeast.

PHOTOGRAPH NO. : 12 (IMG3521.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

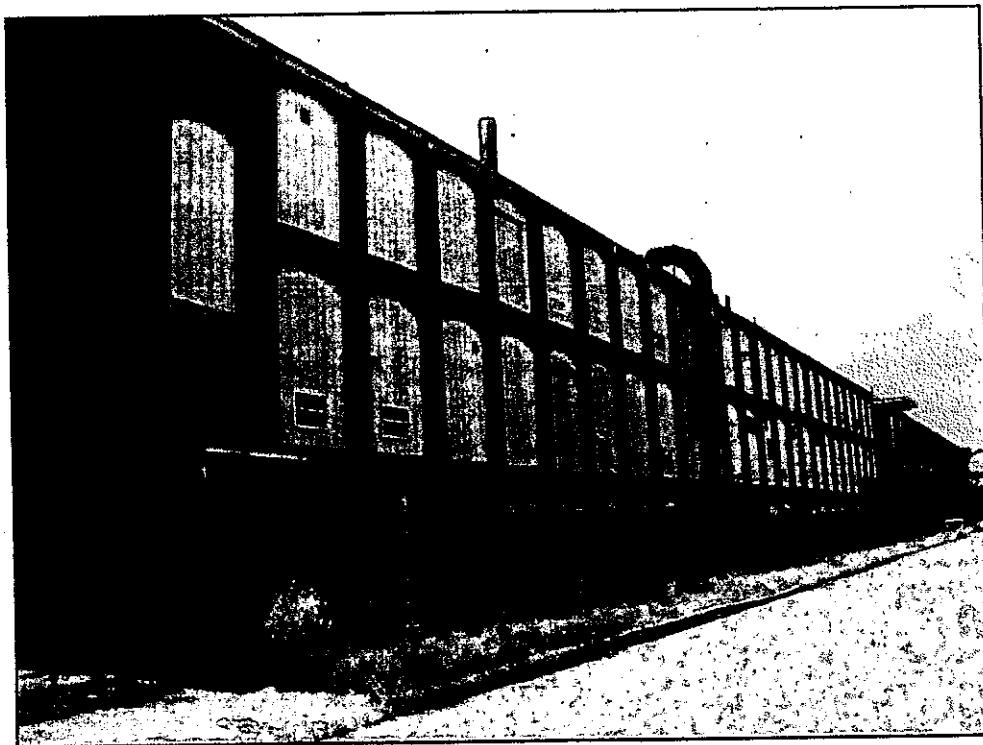
PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the northeastern entrance to the Aerovox building. Photograph taken facing southwest.

PHOTOGRAPH NO. : 13 (IMG3525.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenas

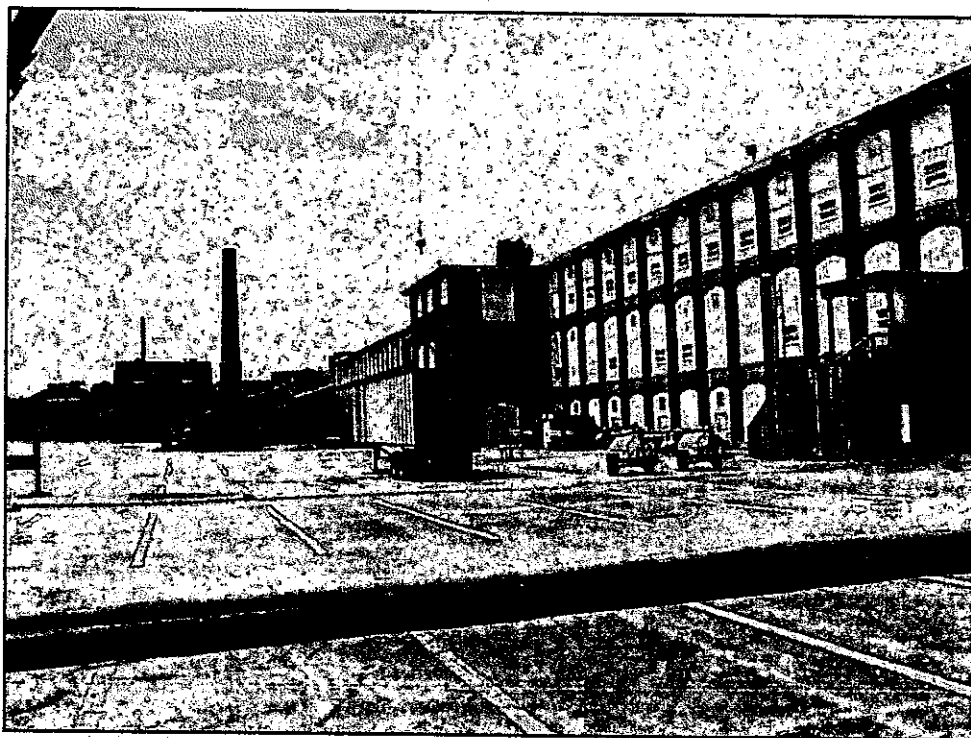


SCENE: View of the northern side of the Aerovox building. Photograph taken facing southwest

PHOTOGRAPH NO. : 14 (IMG3524.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

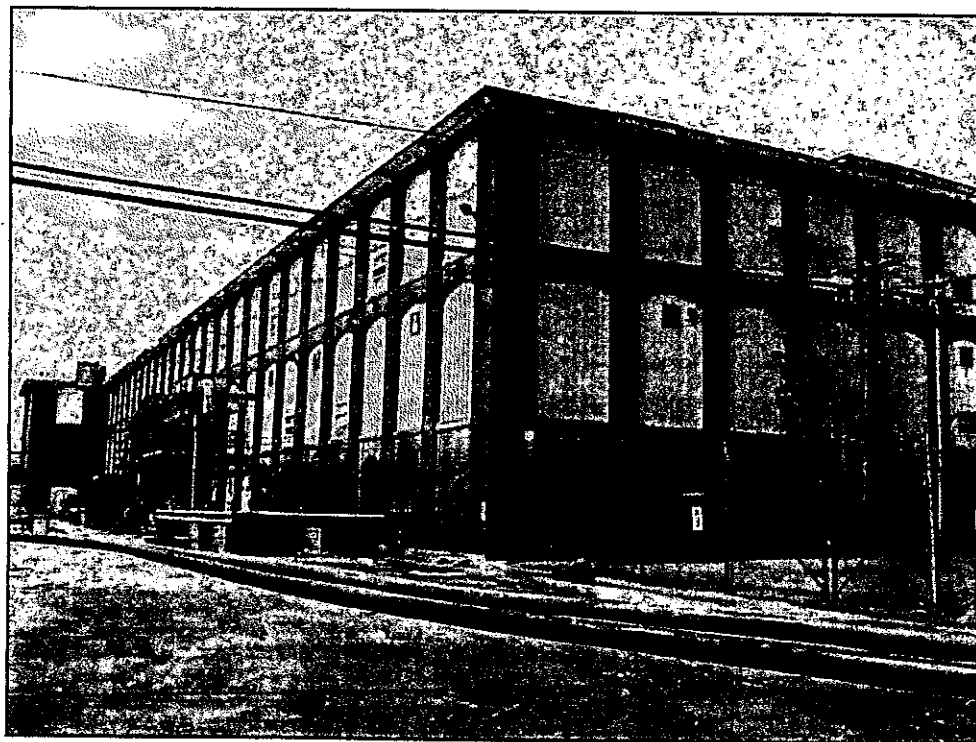


SCENE: View of the southern side of the Aerovox building. Photograph taken facing west.

PHOTOGRAPH NO. : 15 (IMG3528.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



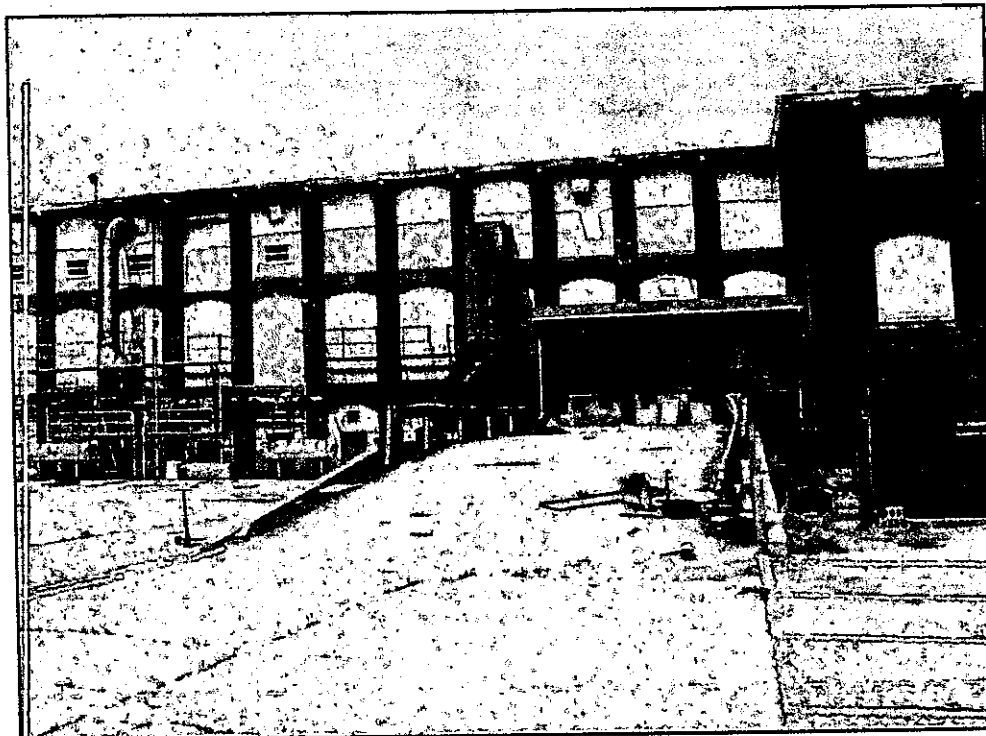
SCENE: View of the southeast corner of the Aerovox building. Photograph taken facing northwest.

PHOTOGRAPH NO. : 16 (IMG3527.jpg)

DATE: 02 August 2007

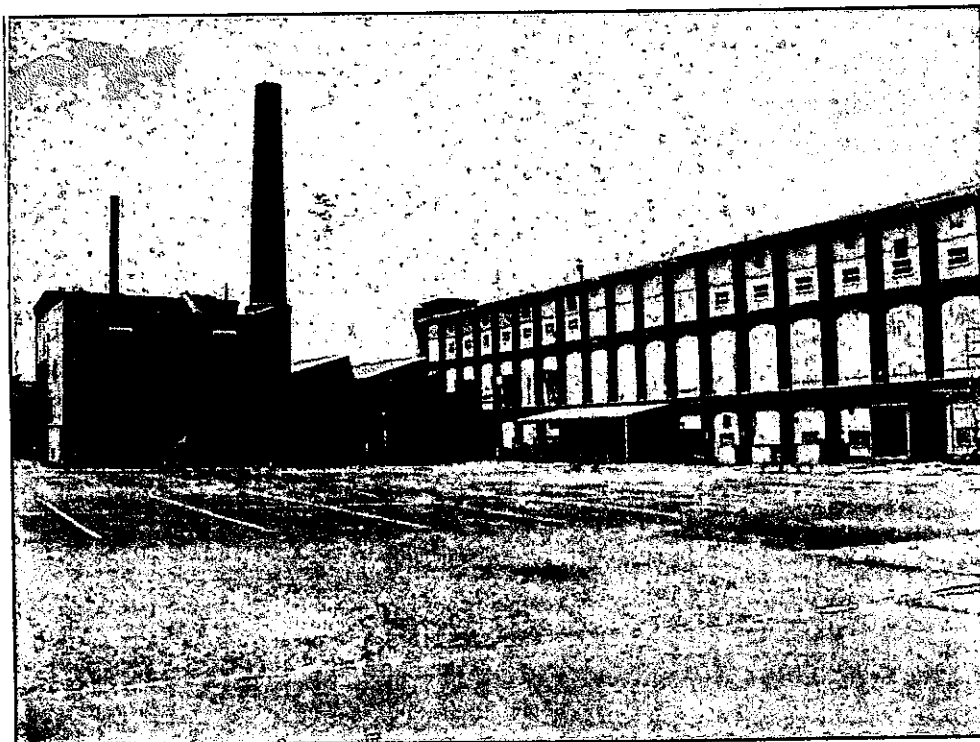
PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the loading ramp located on the southern side of the Aerovox building. Photograph taken facing north.
PHOTOGRAPH NO.: 17 (IMG3530.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

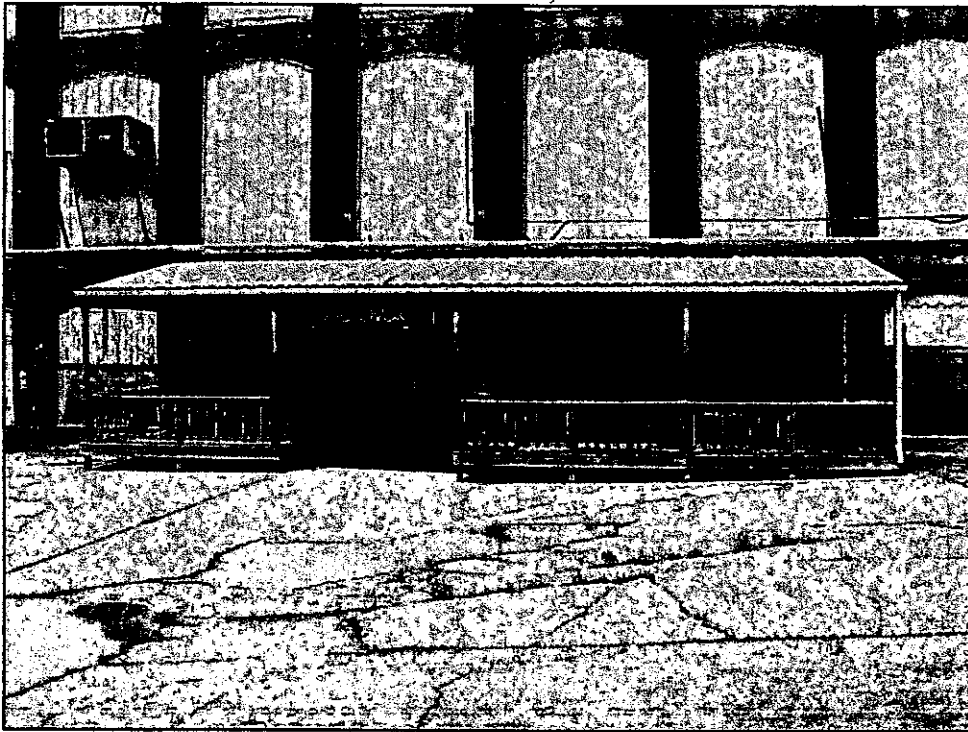


SCENE: View of the boiler room structure and southwest end of the Aerovox building. Photograph taken facing northwest.

PHOTOGRAPH NO.: 18 (IMG3531.jpg)
DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

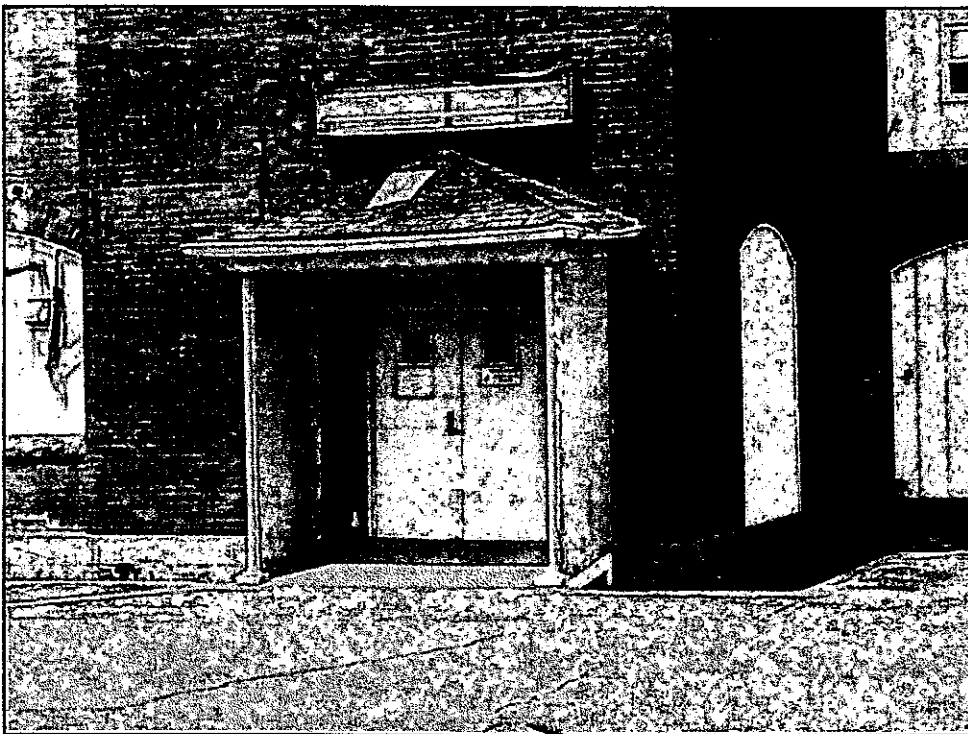


SCENE: View of the main employee entrance to the Aerovox building. Photograph taken facing north.

PHOTOGRAPH NO. : 19 (IMG3533.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas



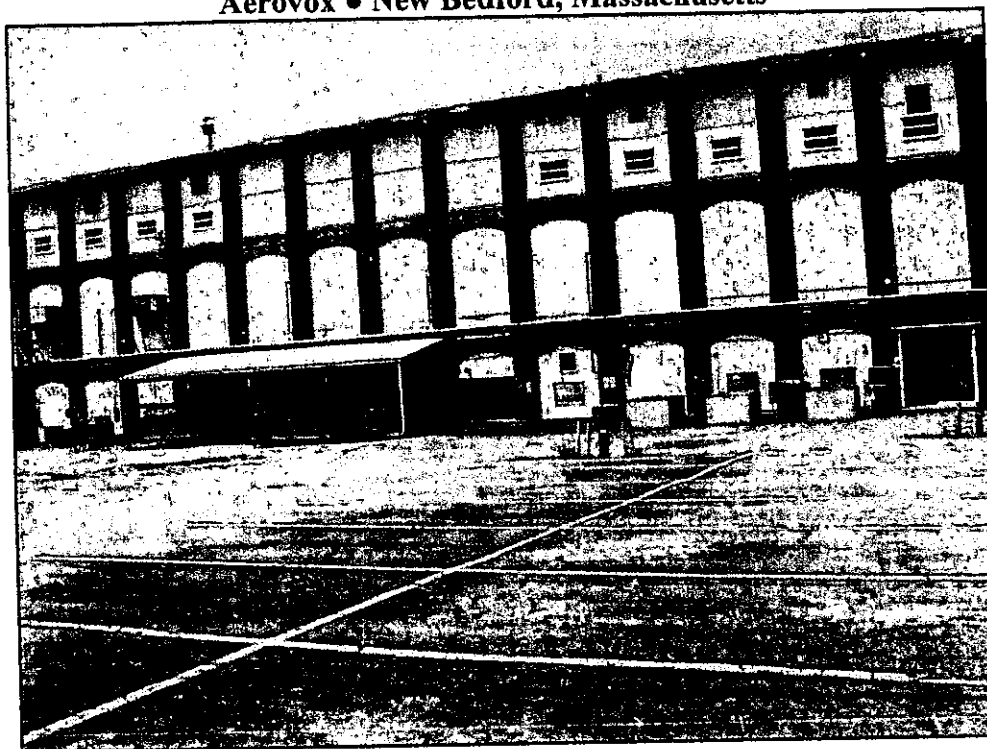
SCENE: View of the southeast entrance and stairwell of the Aerovox building. Photograph taken facing north.

PHOTOGRAPH NO. : 20 (IMG3529.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the main employee entrance and southern side of the Aerovox building. Photograph taken facing north.

PHOTOGRAPH NO. : 21 (IMG3532.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bazenas



SCENE: View of a damaged thermometer on the second floor. Photograph taken facing southeast.

PHOTOGRAPH NO. : 22 (HPIM0534.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the area (former fiber drum) with elevated readings on the second floor. Photograph taken facing southeast.

PHOTOGRAPH NO. : 23 (HPIM0535.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton



SCENE: View of a box containing a flow meter in the northwest corner of the first floor of Aerovox building. Photograph taken facing west.

PHOTOGRAPH NO. : 24(HPIM0536.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of beads of metallic mercury on the floor of the machine shop storage area of the first floor of the Aerovox building.

PHOTOGRAPH NO. : 25 (HPIM0541.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton



SCENE: View of beads of metallic mercury on the floor of the machine shop storage area of the first floor of the Aerovox building. Photograph taken facing southeast.

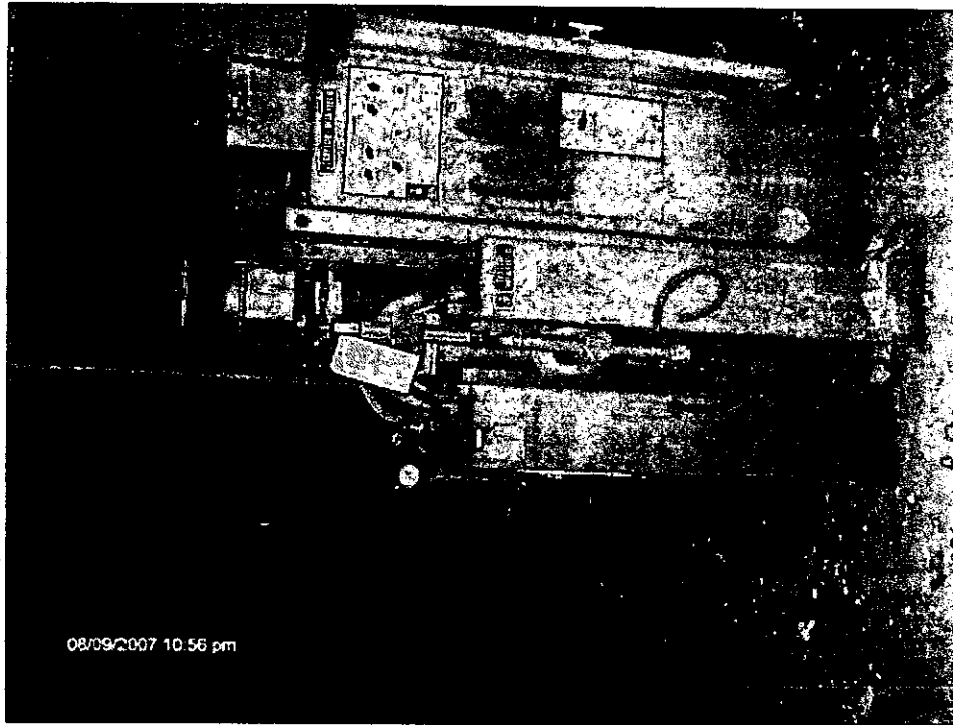
PHOTOGRAPH NO. : 26 (HPIM0539.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

TOP



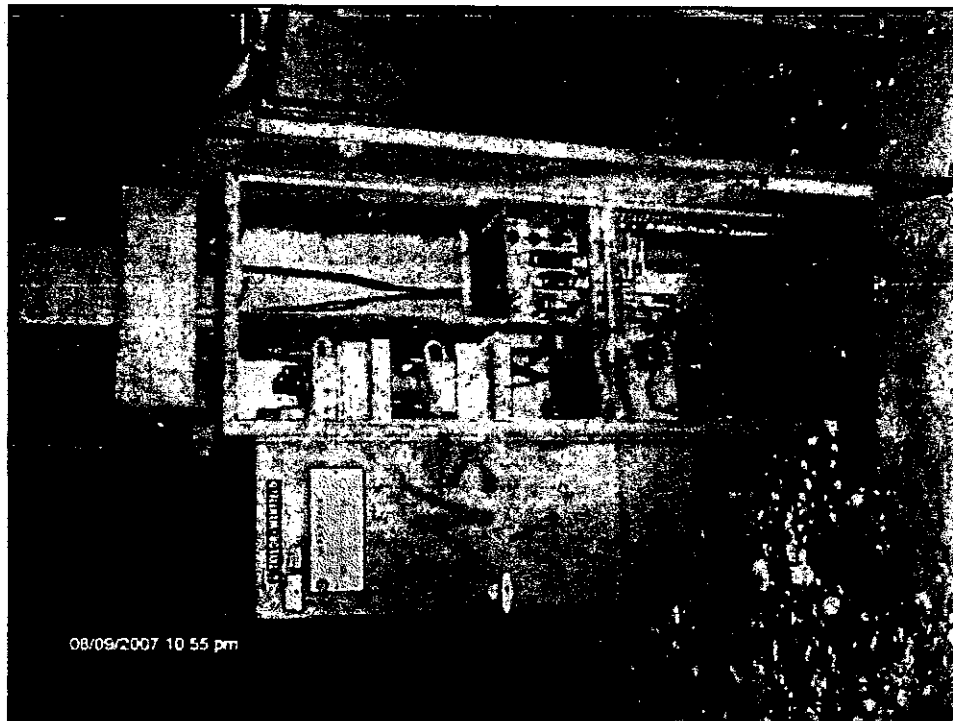
SCENE: View of intact ignitrons located in the northeast corner of the first floor of the Aerovox building. Photograph taken facing west.

PHOTOGRAPH NO. : 27 (HPIM0537.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton

TOP



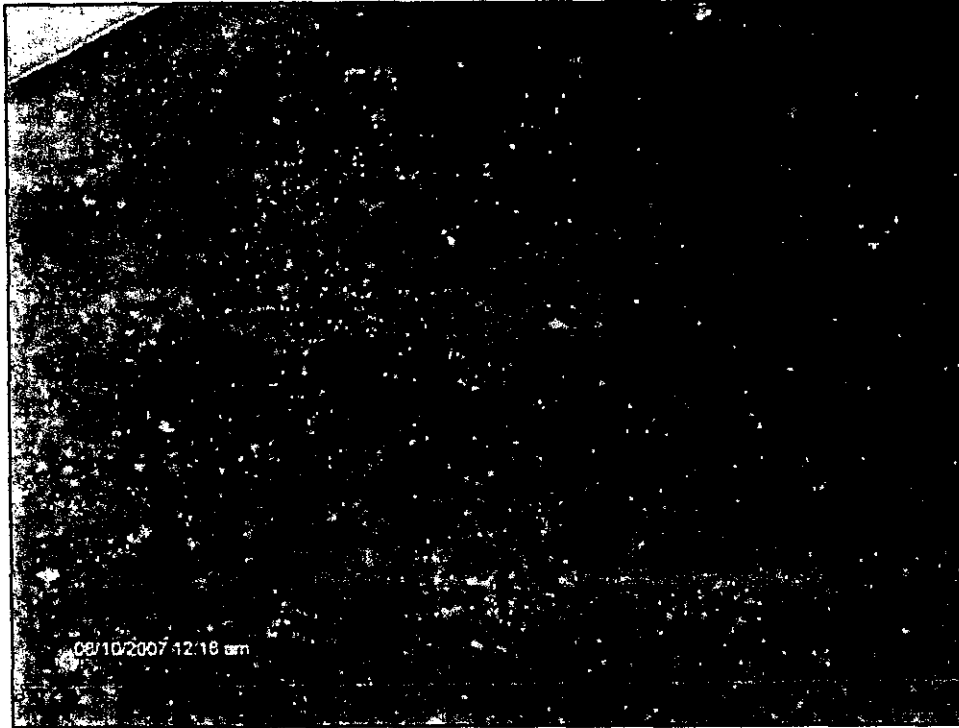
SCENE: View of intact ignitrons located in the northeast corner of the first floor of the Aerovox building. Photograph taken facing south.

PHOTOGRAPH NO. : 28 (HPIM0538.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: T. Benton

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

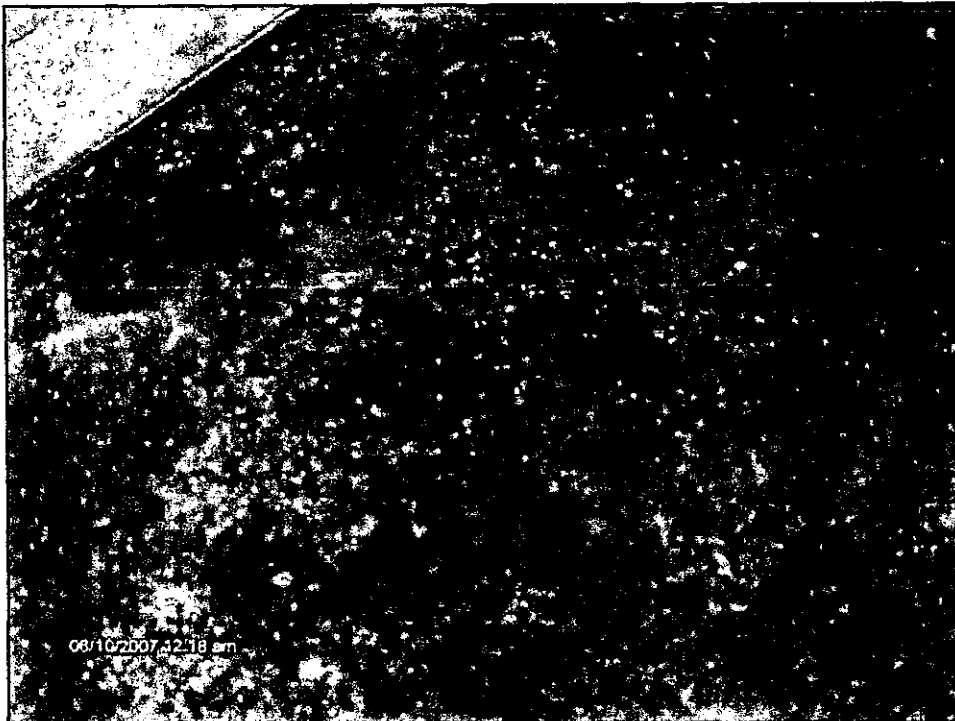


SCENE: View of beads of mercury in the stockroom area of the Aerovox building. Photograph taken facing southeast.

PHOTOGRAPH NO. : 29 (HPIM0555.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: M. Hall



SCENE: View of beads of mercury in the stockroom area of the Aerovox building. Photograph taken facing southeast.

PHOTOGRAPH NO. : 30 (HPIM0556.jpg)

DATE: 02 August 2007

PHOTOGRAPHER: T. Bzenas

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of beads of mercury in the stockroom area of the Aerovox building. Photograph taken facing southeast.

PHOTOGRAPH NO. : 31 (HPIM0552.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: M. Hall



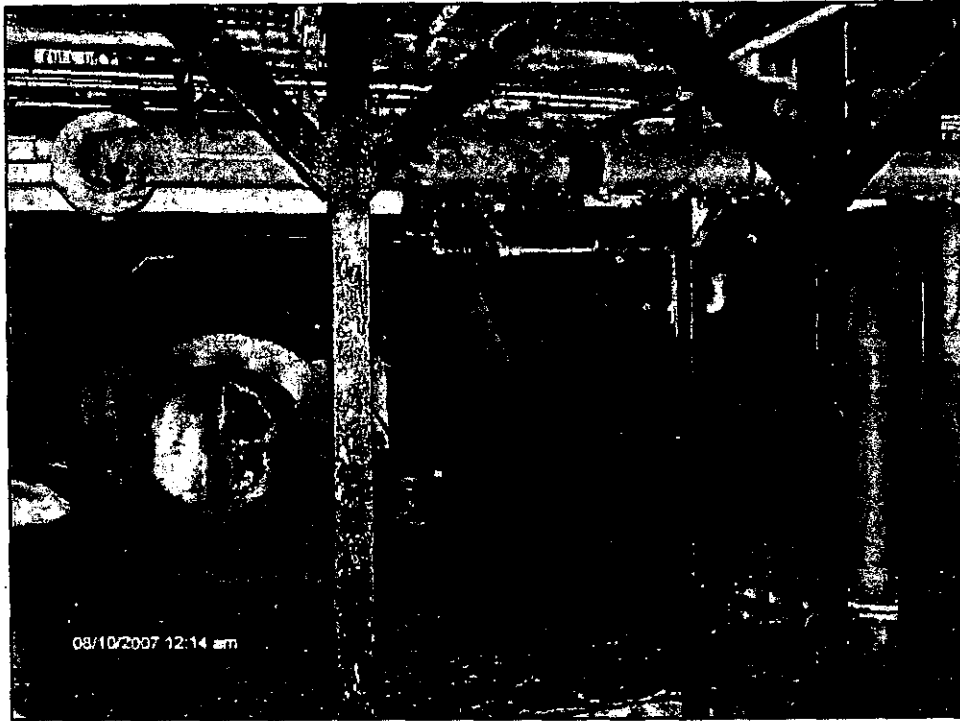
SCENE: View of the boiler room Photograph taken facing east.

PHOTOGRAPH NO. : 32 (HPIM0547.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: M. Hall

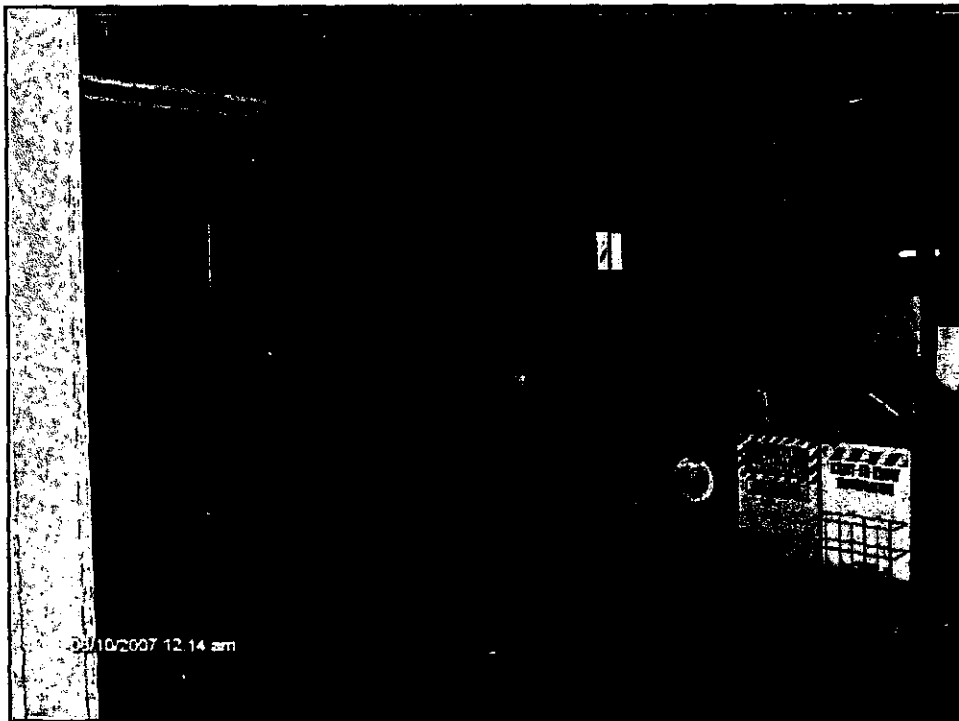
PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts



SCENE: View of the boiler room Photograph taken facing north.

PHOTOGRAPH NO. : 33 (HPIM0546.jpg)
DATE: 16 August 2007

PHOTOGRAPHER: M. Hall



SCENE: View of the boiler room Photograph taken facing northeast.

PHOTOGRAPH NO. : 34 (HPIM0545.jpg)
DATE: 16 August 2007

PHOTOGRAPHER: M. Hall

PHOTOGRAPHY LOG SHEET
Aerovox • New Bedford, Massachusetts

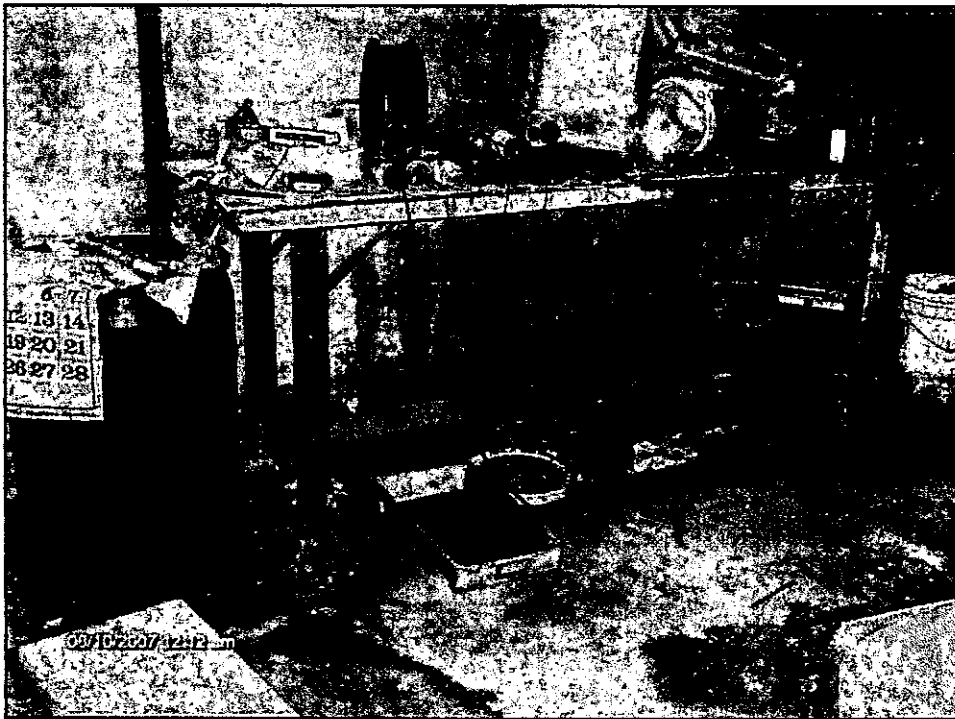


SCENE: View of ignitrons and mercury on a workbench in the storage room on the north side of the building. Photograph taken facing west.

PHOTOGRAPH NO. : 35 (HPIM0543.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: M. Hall



SCENE: View of ignitrons and mercury on a workbench in the storage room on the north side of the building. Photograph taken facing southwest.

PHOTOGRAPH NO. : 36 (HPIM0542.jpg)

DATE: 16 August 2007

PHOTOGRAPHER: M. Hall