SDMS Document
99661

LOWER PASSAIC RIVER STUDY AREA
PRP DATA EXTRACTION FORM

ITT AVIONICS DIVISION

CURRENT MAILING ADDRESS/CONTACT INFO:

ITT Industries, Inc.
(A subsidiary of ITT Industries, Inc. White Plains, NY)
Chris Bernhardt, President
100 Kingsland Drive
Clifton, NJ 07014

(ADC000213 at Tab 2)

Fern Fleischer Daves
ITT Industries
4 West Red Oak Lane
White Plains, NY 10604

FACILITY ADDRESS:

ITT Avionics Division
100 Kingsland Road
Clifton, NJ
("Site")

(ADC000417 at Tab 13)

Other descriptions of the Site location include:

Block 83-01 Lot 1 (Note this refers to a portion of the property subdivided in 2001.
(ADC000248 at Tab 4)

FINANCIAL VIABILITY (annual revenue, # of employees):

ITT Industries currently employs 42,000 people around the world. Company stock is traded on the New York Stock Exchange, as well as the London, Paris, Midwest, Pacific and Frankfurt exchanges. ITT reported sales of $6.8 billion dollars in 2004. (www.itt.com)

DATES OF OPERATION (include info. on predecessors/successors if known):

ITT (Federal Telephone & Telegraph) owned and operated the Site from 1946 to 1996. In 1996, Related Retail Clifton, LP bought the Site and leased it to ITT, which remained the Site operator. In 1998, ITT repurchased the Site and continues to own and operate it today.

Note – in 2001, a portion of the Site identified as Block 83.01 Lot 1 was subdivided and sold to Related Retail Corporation. (ADC000248 at Tab 4)

DESCRIPTION OF FACILITY OPERATIONS (list CERCLA hazardous substances used, manufactured or present):

The Site operator, prior to purchase by ITT in 1946, was a country club and golf course. (ADC000429 at Tab 13)

The 50-acre Site is located in an area of Clifton occupied by both residences and industrial facilities. It is bordered to the north by NJ State Highway Route 3, a service station and a hotel. The eastern Site border is River Road and the southern Site boundary is Kingsland Road. The Third River, a tributary to the Passaic River, borders part of the Site to the west and flows around the property to the west, north and east. The Third River discharges to the Passaic River approximately one quarter mile east of the Site. (ADC000429 at Tab 13)

ITT assembles electronic equipment used in the defense industry. Historically, ITT manufactured television and radio tubes, telephones, radios, washing machines and printed circuit boards. Current Site operations include welding, soldering, painting, printing, degreasing, drilling, machining, grinding, assembly and product testing. (ADC000429 at Tab 13)

The following chemicals were stored in 55 gallon drums onsite:

- Methylene chloride
- Trichloroethene (TCE)
- 1,1,1-trichloroethane

(ADC000435 at Tab 13)

An industrial wastewater pretreatment facility was in operation from 1982 to 1990. Process operations feeding the system used plating baths of cadmium, chromium, copper, lead, molybdenum, nickel, silver, tin and zinc in addition to degreasing operations that used trichloroethene (TCE), and 1,1,1-trichloroethane. (ADC000436 and ADC000437 at Tab 13)

The following substances were identified in one or more Community Right To Know Chemical Inventory Reports for reporting periods January 1 – December 31, 1988, January 1 – December 31, 1994, January 1 – December 31, 2000:

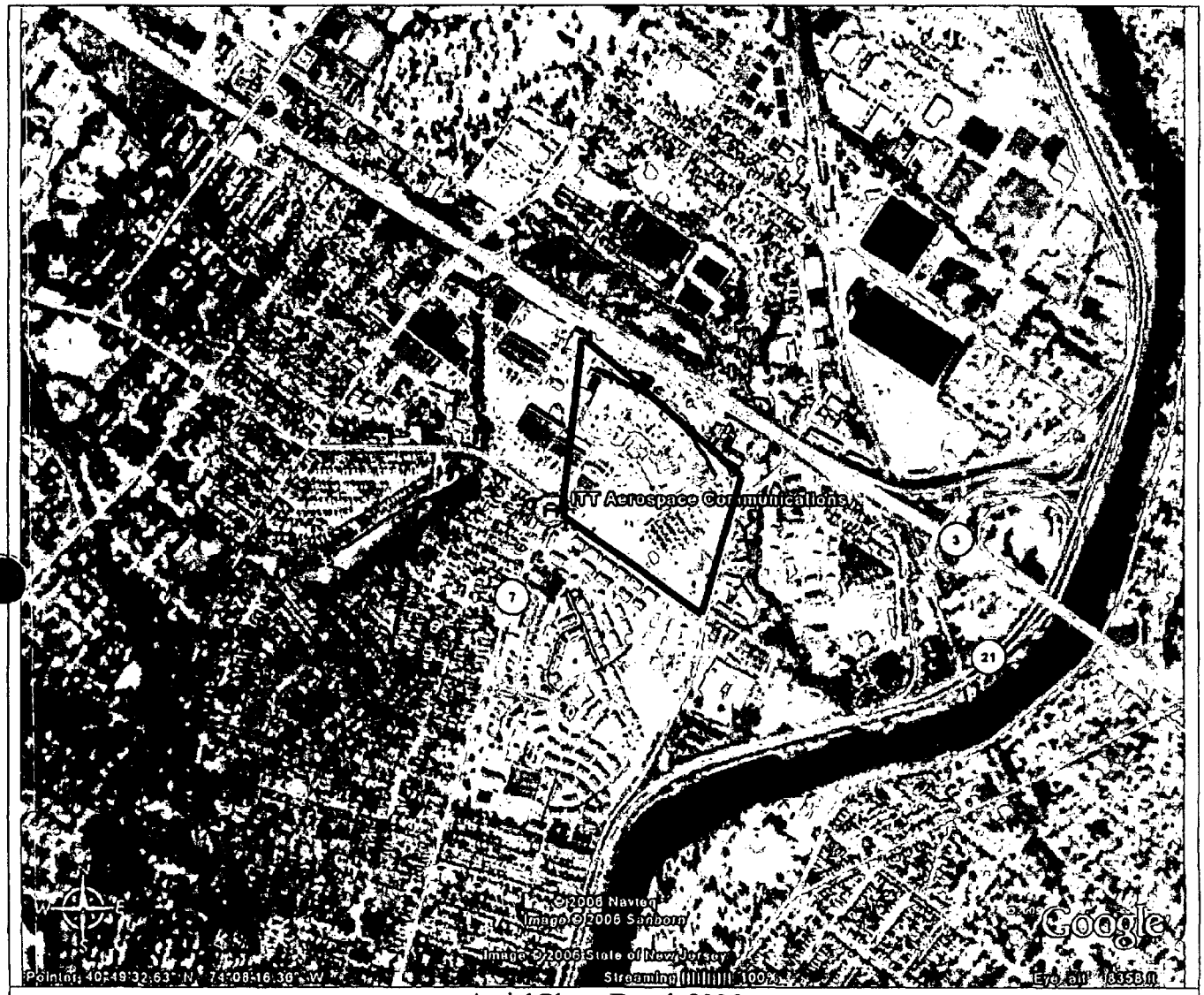
- 1,1,1- Trichloroethane
- Ethylene glycol
- No. 4 fuel oil
- Isopropyl alcohol
- Nitrogen
- Toluene
- Dichlorodifluoromethane
- Freon 113
- Sulfuric acid
- Xylene (mixed isomers)

- Ammonium persulfate
- Hydrogen chloride
- Copper chloride
- Muiatic acid
- Stannous chloride
- Hydrochloric acid
- Potassium hydroxide
- Chromic acid
- Methylene chloride
- Trichloroethylene
- Dipropylene glycol
- Acetic acid
- Dye
- Butyl acetate
- Cellosolve acetate
- Methyl ethyl ketone
- Mineral oil
- Hydroquinone
- Pine oil
- Zinc oxide
- Ethyl acetate
- Ethanol
- Diacetone alcohol
- Titanium dioxide
- Mineral spirits
- Cyclohexanone
- Heptane
- Acetone
- Isopropanol
- Polystyrene resin
- Hydrogen chloride
- Dipropylene glycol methyl ether
- Formaldehyde
- Methanol
- Copper
- Aluminum
- Sodium hydroxide
- Ammonium hydroxide
- Nitric acid
- Chlorine
- 1, 1, 2-trichloro-1, 2, 2-trifluoroethane
- Methyl isobutyl ketone
- Naptha solvent
- Methyl chloroform

(ADC000167 - 194 at Tab 1, ADC000309 - 339 at Tab 8, ADC000340 - 351 at Tab 9)

Aerial Photograph:

The following aerial photograph, annotated with the rough outline of the historical ITT Avionics facility, shows the approximate location of the ITT Site in Clifton, NJ.



Aerial Photo Dated: 2006
All annotated outlines and locations are approximations.
Source: Google Earth

On August 14, 1986 there was a release of 1,1,1-trichloroethane to the Site subsurface in the northeastern portion of the main manufacturing building. A groundwater investigation identified dissolved contaminants. A groundwater pump and treat system was designed and implemented. The treatment system has been in operation since 1992. (ADC000352 at Tab 10)

Site Soil Contamination:

- TPHC 12,000 ppm
- Arsenic 33.6 ppm
- Benzene 0.4 ppm
- 1,2-Dichloropropane 0.01 ppm
- Toluene 4.2 ppm
- Ethylbenzene 1.5 ppm
- Acetone 0.037 ppm
- 1,1,1-trichloroethane 0.12 ppm
- 1,2-dichloroethane 0.035 ppm
- 1,1- dichloroethene 0.039 ppm
- 1,2-trichloro-1,2,2-trifluoroethane 0.085 ppm

(ADC000511-513 at Tab 13, ADC000376 at Tab 11, ADC000278 at Tab 5)

Site Sediment Contamination:

No information available at this time.

Site Groundwater Contamination:

- 1,1,1-TCA 72,000 ppb
- 1,1 dichloroethene 20,000 ppb
- 1,1-dichloroethane 230 ppb
- 1,2-dichloroethane 8,100 ppb
- Benzene 250 ppb
- Carbon Tetrachloride 78 ppb
- Tetrachloroethene 130 ppb
- Toluene 830 ppb
- Ethylbenzene 760 ppb
- Xylene 280 ppb
- VOCs 101,152 ppb
- Chloroform 370 ppb
- Trichloroethene 180 ppb
- Chlorobenzene 15 ppb
- Methylene Chloride 5 ppb
- 1,2-Trans-dichloroethene 28 ppb

(ADC000244 at Tab 3, ADC000381 at Tab 11, ADC000448 – 450 at Tab 13, ADC000519 – 520 at Tab 13, ADC000522 at Tab 13,)

PERMITS (provide dates):

NPDES:

NJPDES-DGW Permit No. NJ0076023 issued May 1, 1990 required delineation of 1,1,1-TCA, benzene, toluene, ethylbenzene and xylene to a concentration of 1 ppm.
The permit was modified and reissued on April 23, 1992 and again on August 1, 1995 with an expiration date of August 1, 1998. (ADC000446 - 447 at Tab 13)

NJPDES Permit Number NJ020214 issued March 31 1992 and effective until April 30, 1997 authorized a discharge to the Third River (DSN001) and two discharges to the Passaic River (DSN 002 DSN 003). The effluent to the discharge points included thermal surface water discharge and stormwater run off.(ADC000288 at Tab 16)

ITT eliminated DSN 001 in 2002 and the permit was reissued effective through June 30, 2005. (ADC000387 at Tab 12)

POTW (pretreatment) :

No information available at this time.

NEXUS TO LOWER PASSAIC RIVER STUDY AREA (describe in detail; cite to supporting documentation; date or time period of disposal; list CERCLA hazardous substances; and volume, if known):

Direct (e.g. pipe, outfall, spill):

No information available at this time.

Sanitary Sewer (provide name and location of CSO; details regarding CSO overflows and dates):

Industrial process waste water was conveyed to a wastewater pretreatment system located in a sub-basement of the main building where chromium was reduced from hexavalent to trivalent, metal hydroxide was precipitated and wastewater was neutralized prior to discharge to the municipal sanitary sewer. This wastewater pretreatment system was in use from 1982 to 1990. (ADC000436 - 437 at Tab 13) It is unknown what pretreatment measures were in place prior to 1982 and post 1990.

City of Clifton sanitary sewer maps indicate that the local intercepting sewer passing through the ITT property joins the PVSC main interceptor at the location of the Yantacaw

bypass. Historic PVSC records and reports indicate that wastes were routinely bypassed from the local intercepting sewer and PVSC main interceptor to the Passaic River at this location. (ADC000595-596 at Tab 14, ADC000383-386 at Tab 17)

Storm Sewer (provide name and location of CSO; details regarding CSO overflows and dates):

Catch basins located throughout the Site discharge to the stormwater collection system. The Site stormwater collection system discharges to the Third River at River Road. (ADC000442 – 443 at Tab 13, ADC000259B at Tab 4)

March 31, 2001 – Approximately 50 gallons of ethylene glycol were spilled to the land and approximately 20 gallons of this substance reached the storm sewer and thence the Third River. (ADC000305 at Tab 6)

Additionally, boiler blowdown at the facility was historically piped to the stormwater collection system. Site drawings from 1975 stating "4-inch discharge line to be plugged relocating to sanitary line" indicate that prior to the date of this drawing all boiler blowdown from the facility was discharged from the Blowdown Tank to a 30" storm line that is part of the facility stormwater collection system. Based on this reference, boiler blowdown discharges have been made to the Third River from the ITT Site from the time period of facility start-up in 1946 until at least 1975. (ADC000597 at Tab 15) Boiler blowdown water is known to be an industrial wastewater and typically contains contaminants such as dissolved/suspended minerals, heavy metals (iron, copper), corrosion inhibitors, oil, and/or algaecides. (ADC000598 at Tab 18) Common industry guidance states that "Boiler blowdown must be managed as a wastewater source." (ADC000228 at Tab 19)

Runoff:

No information available at this time.

Groundwater:

August 14, 1986 – Approximately 300 gallons of 1,1,1-trichloroethane was released to the subsurface via a piping vault beneath the manufacturing building. In January of 1987, in accordance with an agreement with NJDEP, one monitoring well was installed down gradient of the spill. Groundwater was found to be contaminated with 1,1,1-trichloroethane. (ADC000307 at Tab 7, ADC000431-432 at Tab 13)

In order to assess the potential for the TCE contamination in groundwater to reach the Third River, solute transport calculations were performed for this constituent detected above standard in groundwater down gradient of the Site. These calculations

concluded that TCE did not attenuate to NJDEP Groundwater Quality standards for TCE prior to reaching the Third River. A detailed discussion of the calculations used in this assessment is provided in an April 15, 2002 H2M letter to NJDEP. (ADC000352 - 358 at Tab 10)

POTENTIAL NEXUS TO LOWER PASSAIC STUDY AREA:

Direct (e.g. pipe, outfall, spill):

No information available at this time.

Sanitary Sewer (provide name and location of CSO; details regarding CSO overflows and dates):

No information available at this time.

Storm Sewer (provide name and location of CSO; details regarding CSO overflows and dates):

No information available at this time

Runoff:

As indicated above, Site soil has been shown to be contaminated with a variety of hazardous substances. Runoff of contaminated soil to the Third River via the facility stormwater collection system is likely. Documents reviewed regarding on-site remedial investigation activities do not indicate that catch basin sediments at the Site were ever characterized. The presence of contaminated catch basin sediments can be an indicator of historic hazardous substance discharge to the receiving water body.

Direct runoff contamination of the Passaic River is also possible as the Site slopes towards the bordering Third River, which discharges to the Passaic River approximately one-quarter mile east of the Site. (ADC000429 at Tab 13)

Groundwater:

No information available at this time.

LOWER PASSAIC RIVER STUDY AREA

DIRECT DISCHARGE PRP CASES FOR THE LOWER PASSAIC RIVER STUDY AREA

ITT Avionics Division INDEX OF EVIDENCE

Tab No.	Year	Day and Month	Description
1	2000		NJDEP Community Right To Know Survey for 2000
2	2006	18-Jan	Dun & Bradstreet Comprehensive Report
3	1996	6-Dec	H2M Group correspondence to NJDEP re: Remedial Investigation Report and Action Work Plan for ITT Avionics
4	2001	31-Oct	NJDEP correspondence to ITT Avionics re: LNA Application
5	1990	January	Discharge Investigation and Corrective Action Report re: ITT Avionics Division. Prepared by H2M Group
6	2001	31-Mar	NJDEP Communications Center Notification Report re: ITT
7	1986	22-Aug	ITT correspondence to City of Clifton Health Department re: hazardous substance discharge report
8	1994		NJDEP Community Right To Know Survey for 1994
9	1988		NJDEP Community Right To Know Survey for 1988
10	2002	15-Apr	Correspondence from H2M Group to NJDEP re: ITT Avionics Division NJPDES Permit # NJ0076023
11	1997	September	Remedial Action Report for ITT Avionics Division. Prepared by H2M Associates, Inc.
12	2002	31-Oct	NJDEP correspondence to Director of Environmental Health & Safety for Clifton, New Jersey re: Surface Water GPA Mod
13	1996	June	Remedial Investigation Report and Remedial Action Work Plan for ITT Avionics Division. Prepared by H2M Associates
14	1945		City of Clifton Sanitary Sewers map
15	1975	29-Apr	ITT Avionics Division - Boiler Bow Down Piping "Clifton Plant"
16	1992	31-Mar	Permit # NJ0020214 with effective date of 5/1/1992 and expiration date of 4/30/1997
17	1976		Report upon Overflow Analysis to Passaic Valley Sewerage Commissioners - Yantacaw Street, Clifton
18			On-Line document re: Blowdown water

Tab No.	Year	Day and Month	Description
19	2006	3-May	On-Line document re: Chem-Alliance Plant Tour & Regulatroy Information