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TDD # F1-8006-01a

PRELIMINARY SITE ASSESSMENT

of

SURFACE COATINGS, INC.

(RAFFI & SWANSON, INC.)

100 Eames Street
Wilmington, Massachusetts

Submitted to:
Merrill S. Hohman (Acting DPO)
Air and Hazardous Materials Division
U.S. EPA, Region I

Submitted by:
David Cook, Project Leader
Ecology and Environment, Inc. (E & E)
FIT Team, Region I

Date Submitted:
August 6, 1980

PRELIMINARY SITE ASSESSMENT

FOR SURFACE COATINGS, INC. (RAFFI & SWANSON, INC.)

TDD #:	F1-8006-01
Firm Name:	Raffi & Swanson * Surface Coatings, Inc. *
Address:	100 Eames Street, Wilmington, Massachusetts
Telephone:	933-4200
Owner:	Corporation

* These are two companies with the same directors and stockholders. Raffi and Swanson is a marketing company. Surface Coatings, Inc. is a manufacturing plant.

1. Site Description:

Raffi & Swanson/Surface Coatings, Inc. occupies a 25-acre site at 100 Eames Street in Wilmington, Mass. The site is bounded on the west by the B&M railroad tracks and on the south by Eames Street. The current owner has owned the site for twenty-nine years. Eleven acres were purchased from Joseph Gray (former farm) in 1951 and the other 14 acres were purchased in six separate parcels since that time. Additional information is available from Ralph Swanson, if needed. The property consists of eighteen to twenty separate buildings and storage sheds and several large outside, above ground storage tanks. The property is fenced by chain link, and the front gate on Eames Street appears to be the sole access point. General housekeeping at the facility is good with the exception of some 55-gallon drums stored at the rear (north) of the property (Figure 1), some gravel fill which appears to have been recently disturbed (Figure 2) (also at the rear of the property), and several deep cuts in the embankment at the west side of the property which lead into the drainage ditch adjacent to the B&M railroad tracks (Figure 3). Mr. Swanson stated that there are no wells on the property.

2. Primary Site Activity:

On July 25, 1980, a telephone interview was conducted by Paul Exner of the Ecology and Environment, Inc. Field Investigation Team. the person interviewed was Ralph Swanson, Vice President of Raffi & Swanson and Surface Coatings, Inc. Mr. Swanson stated that the plant on the site manufactures finishes such as lacquers, urethanes, acrylics, epoxies and enamels to coat wood, leather, paper, etc. Specialty inks are also formulated. Most compounds are formulated in specialty batches. Mr. Swanson stated that a number of chemicals are used as starting materials (see attached schedule of compounds, obtained from Mass. DEQE files) and that these materials are shipped to the site and stored in large tanks on the premises. Mr. Swanson also stated that lists of material have been submitted for regulation under both TSCA and RCRA. Mr. Swanson stated that more detailed information on the products could be obtained from him directly. Mr. Swanson stated that the main waste product generated is cleaning solvent which is formulated on-site from approximately twenty different compounds. Sixty percent of this cleaning solvent consists of toluol. Methylethyl ketone (MEK) is also used. The solvent formulated is used to clean equipment. Mr. Swanson stated that about 2000 gallons of waste solvent are generated weekly. The solvent is first drained or pumped from the process equipment it is used to clean into 55-gallon drums. The drums are then removed to a storage area where they are pumped into one of four 2000 gallon waste solvent holding tanks. Mr. Swanson stated that Solvents Recovery Service of New England picks up the waste solvent in 6000 gallon lots. Solvent is pumped from three of the four holding tanks into a tank truck which carries the material to the Solvents Recovery Facility. Seventy-five percent of the solvent is recovered and returned to the Raffi & Swanson/Surface Coatings, Inc. plant. The remaining twenty-five percent must be made up from fresh material. Mr. Swanson stated that the drums used in transferring the waste are used only once before being shipped to the Roche Company of Lowell for reconditioning. Mr. Swanson stated that the drums returned to his plant are not necessarily the same ones shipped out.

3. Background Information

Background information on Raffi & Swanson/Surface Coatings, Inc. was obtained from several sources. The following is a summary of information obtained and reviewed by E & E:

3.1. Massachusetts DEQE Air Section files were reviewed with Bob Cleary of DEQE. There are several complaints on file from residents in the vicinity of the Raffi & Swanson/Surface Coatings, Inc. plant concerning odors in the air. There is also a report of a plant visit that was conducted by a DEQE investigator. Information relevant to our investigation is as follows:

3.11 Report dated June 12, 1979, of a visit by Weiscopf Kelly, Mass. DEQE to the Raffi & Swanson/Surface Coatings, Inc. plant. Visit was conducted by Ralph Swanson, V. P. The report included a brief description of the plant operation and location of some of the processes.

3.12 Notes dated March 27, 1980 by Mr. Pritchard of DEQE investigating a complaint of an odor from the Raffi & Swanson/Surface Coatings, Inc. area. An ethylacrylate pipe was found to be broken.

3.2 Field Survey, July 22, 1980, David Cook and Paul Clay, E&E/FIT. Observations and photographs were made of the Raffi & Swanson/Surface Coatings site from the B&M railroad tracks west of the site. Observations which bear further investigation were noted in the site description.

3.3 Telephone conversation, July 28, 1980 between Steve Kruger, MDC Sewer Permits and Paul Clay, E&E/FIT. Mr. Kruger stated that prior to August, 1979, Raffi & Swanson/Surface Coatings, Inc. was cited for discharging non-contact cooling water into the MDC sewer. The reason for the citation was that the temperature of the water was above MDC limits. A communication from Raffi & Swanson/Surface Coatings, Inc. in August, 1979 indicated to the MDC that they were in the process of installing a cooling tower at the plant. There was no record of further communication.

4. Recommendations:

It is recommended that the E & E Field Investigation Team perform an on-site inspection of Raffi & Swanson; Surface Coatings, Inc. to determine the following:

4.1 The method of formulation of the cleaning solvent and the exact manner in which it is used.

4.2 The potential for spillage in the transfer of the cleaning solvent on-site.

4.3 The manner in which reconditioned solvent is returned from Solvents Recovery Services of New England.

4.4 The number of drums shipped for reconditioning, their location of storage and the potential for spillage or leakage of material.

4.5 The nature of the disturbed fill at the rear of the property.

4.6 The origin of the cuts in the embankment at the west of the property which drain into the ditch adjacent to the B & M railroad tracks.

4.7 The exact location of all manholes within the property and a determination as to whether they have been used to dispose of unauthorized material.

4.8 From the above determinations, the potential for RCRA and/or 311/104 Clean Water Act actions.

Application No. 308

TANK NO.	MATERIAL BEING STORED	ANNUAL THRUPUT	SIZE OF CONTAINER
1.	Lacquer Thinner	75,000	10,000 (gal.)
2.	Shellacol (Denatured Ethyl Alcohol	55,333	10,000
3.	Petrohol (Isopropyl Alcohol)	133,427	10,000
4.	Methyl Ethyl Ketone	87,000	10,000
5.	Toluol	473,384	10,000
6.	Toluol	(included in 5)	10,000
7.	Ethyl Acetate 99%	53,298	10,000
8.	D.I.B.K.	21,922	6,000
9.	Butyl Acetate 40	27,593	6,000
10.	Cellosolve	42,048	6,000
11.	1,1,1, Trichloroethane	41,832	6,000
12.	Solox 99% (Anhydrous Ethyl Alcohol Denatured)	35,815	6,000
13.	Xylol	49,751	6,000
14.	Methyl Ethyl Ketone	(included in #4)	6,000
15.	Heptane	5,522	2,000
16.	Acetone	11,643	2,000
17.	M.I.B.K.	15,670	2,000
18.	Butyl Cellosolve	9,123	2,000
19.	Solvent 60 (Butyl Alcohol)	11,092	2,000
20.	V M & P Naphtha	6,621	2,000
21.	Ethylacrylate	85,000	6,800
22.	Methyl Methacrylate	15,000	6,800
23.	2 - Ethyl Hexylacrylate	15,000	3,400
24.	Acrylonitrile	7,500	3,400
25.	n-Butylacrylate	10,000	6,800

Photography Log Sheet TDD# F1-8006-01

Location: RAFFI & SWANSON WILMINGTON Film Roll # 3

Frame #: 7

Amplifying Information:

A. Scene: STACKED DRUMS AT REAR OF R&S PROPERTY, TAKEN THROUGH WEST FENCE; NOTE "DIRTY WASH" LABEL, Possible spill

B. Photo by: PAUL CLAY, EEI/FIT

C. Date/Time. 7/22/80 1510 HRS

D. Sky Cond.: CLEAR

E. Camera/Lens: WERLISA/1.75 FIXED FOCUS

F. Setting: SUN

G. Type of Film: FUJICHROME ASA 100

H. Witness(es): DAVID COOK, EEI/FIT

FIGURE 1

Photography Log Sheet TDD# F1-8006-01

Location: RAFFI & SWANSON WILMINGTON Film Roll # 3

Frame #: 5

Amplifying Information:

A. Scene: DISTURBED FILL AREA AT REAR OF RAFFI & SWANSON TAKEN THROUGH FENCE ON WEST BOUNDARY OF PROPERTY

B. Photo by: PAUL CLAY, EEI/FIT

C. Date/Time. 7/22/80 1510 HRS

D. Sky Cond.: CLEAR

E. Camera/Lens: WERLISA/1.75 FIXED FOCUS SUN SETTING

F. Setting: SUN

G. Type of Film: FUJICHROME ASA 100

H. Witness(es): DAVID COOK, EEI/FIT

FIGURE 2

Photography Log Sheet TDD# F1-8006-01

Location: RAFFI & SWANSON WILMINGTON Film Roll # 3

Frame #: 2

Amplifying Information:

A. Scene: VIEW OF PARTIALLY FILLED DRAINAGE CUT AT WESTERN SIDE OF R&S PROPERTY (TAKEN FROM B&M TRACKS)

B. Photo by: PAUL CLAY, EEI/FIT

C. Date/Time. 7/22/80 1500 HRS

D. Sky Cond.: CLEAR

E. Camera/Lens: WERLISA /1.25 FIXED FOCUS

F. Setting: SUN

G. Type of Film: FUJICHROME ASA 100

H. Witness(es): DAVID COOK, EEI/FIT

FIGURE 3

Raffi & Swanson, Inc.

100 Eames Street
Wilmington, Massachusetts

1. Primary Site Activity:

Raffi & Swanson/Surface Coatings, Inc. manufacturers and markets finishes such as laquers, urethanes, acrylics, apoxies and enamels to coat wood, leather, paper, etc. Specialty inks are also formulated. Most Compounds are formulated in specialty batches. A number of chemicals are used as starting materials (Table 1). These materials are shipped to the site and stored in large tanks on the premises. Lists of materials have been submitted for regulation under both TSCA and RCRA. The main waste product generated is cleaning solvent which is formulated on site from approximately twenty different compounds. Sixty percent of this cleaning solvent consists of toluol. Methyl Ethyl Ketone (MEK) is also used. Approximately 2000 gallons of waste solvent are generated weekly.

The solvent is first drained or pumped from the process equipment it is used to cleanup into 55-gallon drums. The drums are then removed to a storage area where they are pumped into one of four 2000 gallon waste solvent holding tanks. Solvents Recovery Service of New England picks up the waste solvent in 6000 gallon lots. Solvent is pumped from three of the four holding tanks into a tank truck which carries the material to N.E. Solvents Recovery.

Seventy-five percent of the solvent is recovered and returned to the Raffi & Swanson/Surface Coatings, Inc. plant. The remaining twenty-five percent must be made from fresh material. The drums used in transferring the waste are used only once before being shipped to the Roche Company of Lowell for reconditioning. The drums returned to the plant are not necessarily the same ones shipped out.

2. Problems Identified:

Organic vapor concentrations within the process facility were observed to be occasionally as high as 1000 ppm, and continuously as high as 100 ppm. These concentrations in the work environment constitute an OSHA problem.

The group of barrels containing off-spec solvents near the tank farm should be emptied and/or removed, eliminating the spill potential that presently exists there.

3. Investigation to Date:

FIT Team inspection on September 9, 1980 included a tour of the process facility, investigation of the barrel storage and tank farm area at the

north-northwest portion of the property and sampling four sites. The sites were a manhole west of the plant and in line with plant cooling water, a small puddle from condensation from a steam line in the plant building, and the surface water drainage ditch east side and west side of Boston and Maine Railroad tracks.

4. Further Investigation Needed:

None identified.

5. What Remedial Action Needed, as Recommended by the FIT Team:

No threats to ground or surface water quality exist on-site at Raffi & Swanson, Inc.

This site should be removed from the list of potential hazardous waste sites.