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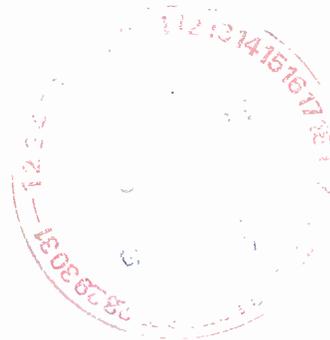
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August 9, 2015



Via Email & Certified Mail

State Water Resources Control Board
Office of Chief Counsel
Adrianna M. Crowl
P.O. Box 100
Sacramento, California 95812-0100

Re: Sahm Broadway Properties, LLC's Petition To Modify Cleanup And Abatement Order Number R4-2015-0131

Dear Ms. Crowl:

On behalf of Sahm Broadway Properties, LLC, please find enclosed a petition pursuant to California Water Code section 13320, *et seq.* to modify Cleanup and Abatement Order Number R4-2015-0131, which was inappropriately and improperly ordered by the Los Angeles Regional Water Quality Control Board on August 12, 2015.

Please do not hesitate to contact me if you have any questions.

Very truly yours,


Jad Davis
of Kutak Rock LLP

Enclosure

cc:

Mr. Samuel Unger, Los Angeles Regional Water Quality Control Board (*via* U.S. Mail)
Mr. Michael Francis, Demetriou, Del Guercio, Springer & Francis, LLP (*via* U.S. Mail)

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8 Attorneys for Petitioner
9 SAHM BROADWAY PROPERTY, LLC

10 THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

11 IN THE MATTER OF CALIFORNIA
12 REGIONAL WATER QUALITY
13 CONTROL BOARD, LOS ANGELES
14 REGION CLEANUP AND ABATEMENT
15 ORDER NO. R4-2015-0131

16 **SAHM BROADWAY PROPERTY, LLC'S
17 PETITION FOR REVIEW OF CLEANUP
18 AND ABATEMENT ORDER NO. R4-2015-
19 0131; REQUEST FOR HEARING**

20 California Water Code § 13320

21 Pursuant to California Water Code Section 13320, Sahn Broadway Property, LLC
22 (“Sahn”) hereby respectfully petitions the California State Water Resources Control Board (the
23 “State Board”) to set aside Cleanup and Abatement Order No. R4-2015-0131, which was
24 inappropriately and improperly ordered by Samuel Unger, Executive Officer of the Regional
25 Water Quality Control Board, Los Angeles Region (the “Regional Board”) on August 12, 2015
26 (the “CAO”), and Sahn requests an opportunity to be heard on this matter with the opportunity to
27 present additional evidence and testimony pursuant to California Water Code Section 2050.6.
28 Sahn’s specific action requested of the State Board is stated in Section 6 below.

Pursuant to the requirements of California Water Code Section 2050(a), Sahn’s petition
contains the following:

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1 **1. Name And Address Of Petitioner**

2 Sahm Broadway Property, LLC
3 c/o Doug W. Sahm
4 P.O. Box 1516
 Rancho Santa Fe, California 92067
 (858) 756-2452

5 **2. Action Of Regional Board Being Petitioned**

6 The specific action of the Regional Board which the State Board is requested to review is
7 the CAO, which was inappropriately and improperly ordered by Samuel Unger, Executive Officer
8 of the Regional Board on August 12, 2015. As required by California Water Code Section
9 2050(a)(2), a true and correct copy of the CAO is attached hereto as Exhibit 1.

10 **3. Date Of Regional Board Action**

11 The CAO was ordered by Samuel Unger, Executive Officer of the Regional Board on
12 August 12, 2015.

13 **4. Statement Of Reasons The CAO Is Inappropriate And Improper**

14 The CAO is inappropriate and improper because it is premised upon an incomplete and
15 unreasonable investigation of Lorber Industries' ("Lorber") operations, chemical use and releases
16 of Constituents of Concern ("COCs") (e.g. TCA, 1, 4-dioxane, toluene, xylene and benzene) as
17 well as unsound science and data. The CAO's improper premise causes the CAO to
18 inappropriately focus only on Lorber's dry cleaning operations from 1974 to 1978; and as a
19 result, the CAO inappropriately concludes that Lorber is only responsible for PCE contamination
20 at Lorber's property.

21 The discussion below demonstrates that the CAO violates the State Board's Resolution
22 No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of
23 Discharges Under Water Code Section 13304" ("Resolution 92-49") because the Regional Board
24 staff failed to reasonably investigate the readily available relevant evidence, including
25 documentation of historical activities by Lorber, industry-wide operational practices that
26 historically have led to discharges, physical evidence from consultants' reports, and other
27 agencies' records of known discharges.

28

1 **A. The CAO's Inappropriate And Improper Premises And Required Actions**

2 The CAO makes the following five inappropriate and improper statements and
3 conclusions.

4 First, in the "Site Description and Activities" section on page 2 of the CAO, the Regional
5 Board states that Lorber conducted both textile and dry cleaning operations; however, the CAO
6 improperly focuses only upon Lorber's dry cleaning machine from 1974 to 1978 and the use of
7 PCE. The CAO states: "Lorber Industries conducted textile operations at 17920, 17908 and
8 17920 South Figueroa but 17920 South Figueroa is considered the actual source of PCE
9 contamination since the dry cleaning operation were conducted at this address."¹

10 Second, the CAO states: "Chemical Usage: A dry cleaning machine was located at the
11 Site inside the 17908 South Figueroa building and PCE was used as the cleaning solvent as noted
12 in Finding No. 4. A dry cleaning machine was operated to clean unsoiled polyester and
13 "gavadine" cloth for clients. A 200-gallon capacity above-ground tank was used to store PCE."²

14 Third, the CAO states: "Source Elimination and Remediation Status: It is reported that
15 the dry cleaning machine was removed in 1978. The 200-gallon PCE AST was also removed
16 from service at that time."³

17 Fourth, the CAO states that "In soil: The maximum concentrations were: PCE 1.7
18 milligrams per kilogram (mg/Kg), TCE (0.577 mg/Kg), and cis-1, 2-DCE (1.25 mg/Kg)."⁴

19 Fifth, the required actions in the CAO are improperly limited to "the Extent of Wastes
20 originating at the Site in Soil, Soil Vapor and Groundwater," which inappropriately imply that
21 Lorber is limited to contamination of only PCE given the finding on page 2, paragraph 4 in the
22 CAO.⁵

23 As discussed in greater detail below, the Regional Board's investigation should not have
24 ignored Lorber's extensive textile operations and the extent of Lorber's dry cleaning operations.
25 Lorber's textile operations, one of the largest in the United States at the time, involved the use

26 ¹ Exhibit 1, CAO p. 2.

27 ² Exhibit 1, CAO pp.2 & 3.

³ Exhibit 1, CAO, p. 4.

⁴ Exhibit 1, CAO p. 3.

28 ⁵ Exhibit 1, CAO, pp. 7 & 8.

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1 and release of COCs. Also, the Regional Board staff should not have limited the investigation of
2 Lorber's dry cleaning operations from 1974 to 1978 as the record (discussed below) demonstrates
3 that Lorber's dry cleaning operations continued until at least 1987. It is important to note that
4 Sahm apprised the Regional Board staff on November 5, 2014 of the details of Lorber's dry
5 cleaning operations (*i.e.* make-up of 300 gallons a month, etc.) and that Lorber conducted dry
6 cleaning operations until 1987. Unfortunately, the Regional Board staff ignored Sahm's
7 comments and the evidence describing Lorber's extensive dry cleaning operations.

8 The Regional Board's staff should have reasonably investigated, or already should have
9 been familiar with, dry cleaning industrial literature as well as other regulatory reports on that
10 industry, which confirm that dry cleaning operations involved COCs as well as PCE from about
11 1971 to at least 1987. Accordingly, the CAO is inappropriate and improper.

12 **B. The Record Demonstrates Lorber's Operations Used And Released TCA, 1,**
13 **4-Dioxane, Toluene, Xylene, Benzene In Addition To PCE**

14 The following is a discussion of readily available evidence from Lorber's documents,
15 industry-wide reports, as well as other regulatory agencies' records that the Regional Board staff
16 improperly ignored in drafting the CAO. Such readily available evidence demonstrates Lorber's
17 extensive textile operations, use and releases of COCs as well as PCE.

18 In violation of Resolution No. 92-49, the CAO ignores the operations, COC use and
19 releases by Lorber. Also, the Regional Board is required by Resolution No. 92-49 to "[m]ake a
20 reasonable effort to identify the dischargers associated with the discharge." The following
21 demonstrates that the Regional Board failed to make a reasonable effort in its investigation of
22 Lorber.

23 **i. Lorber's Extensive Textile Operations**

24 Since the early 1970s, Lorber operated textile manufacturing facilities at 17920, 17908,
25 and 17818 South Figueroa, Gardena Carson properties, which operated 24 hours a day, seven
26 days a week.⁶ Lorber's textile operations included knitting, preparation, dyeing, printing,
27

28 ⁶ Exhibit 2, Lorber's documents to SCAQMD describing its extensive textile operations at its properties.

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1 chemical and mechanical finishing.⁷ Lorber employed 500 employees and was one of the largest
2 dyehouses in Los Angeles and Los Angeles was the second largest center for the garment industry
3 in the United States.⁸ Lorber's former environmental engineer, Martin Ferus, wrote an article
4 stating that Lorber's dye house operation produced about 6,000 tons per year and Lorber's
5 printing department's yearly output was about 3,000 tons per year.⁹

6 Lorber's October 1972 application for a permit from the Air Pollution Control District of
7 the County of Los Angeles ("APCD") indicates that Lorber's operations included about 52
8 knitting machines, a fabric dryer, a dry cleaning unit, and two large steam boilers.¹⁰ Lorber's
9 operations expanded to the 18037, 17905 and 17809 South Broadway properties. Drums and
10 totes with chemicals were stored by Lorber at 17905 and 17809 South Broadway properties from
11 the early 1990s to 2006.

12 From at least 1973 to about 2005, Lorber used the 17818 South Figueroa facility to
13 manufacture fabrics. The 17818 South Figueroa facility is currently leased by TGA Carson
14 Properties, LLC to a business that operates a business cleaning uniforms.

15 From at least 1971 to about 2005, Lorber used the 17908 South Figueroa facility to
16 manufacture fabrics and to conduct other textile operations. Lorber used an UST on the 17908
17 South Figueroa property as a fuel oil storage tank.¹¹ To the east of the building at this facility,
18 Lorber operated large chemical storage tanks and a sewer discharge vault/sump system. Lorber
19 had at least three tall tanks about 12 feet high that contained some type of liquid. These tanks
20 were immediately to the west of Elixir Industries' ("Elixir")¹² 17925 and 17905 South Broadway
21 properties. There was a dirt strip between Lorber's tanks and Elixir's property. Lorber stored
22 chemicals and liquids near these tanks on the eastern side of the 17908 Figueroa facility. On
23 multiple occasions throughout the 1970s and 1980s, chemical fluid ran off of the Lorber property

24 _____
25 ⁷ Exhibit 3, Treatment of wastewaters from textile processing, Martin Ferus (Berlin 1997), p. 50 (Ferus Article).
Martin Ferus was Lorber's environmental engineer as indicated on Lorber's documents to the SCAQMD.

26 ⁸ Exhibit 3, Ferus Article, pp. 49-50.

27 ⁹ Exhibit 3, Ferus Article, p. 50.

28 ¹⁰ Exhibit 4, Lorber's APCD permit applications, field reports, and related documents.

¹¹ Exhibit 5, SCAQMD Field Report for Lorber dated March 25, 1991.

¹² Elixir owned the following properties adjacent to Lorber: 18037, 18025, 17925, 17905 and 17809 South
Broadway, Carson, California (see Exhibit 6) and Sahm purchased these properties from Elixir in 2004.

1 and onto Elixir's property at the low topographic area near the property line between the
2 properties.¹³ Lorber's chemical fluid would occasionally smell like solvent and would be
3 different colors, including pink. Former Elixir employees witnessed Lorber's release of water
4 with chemicals onto the ground east of the buildings located at 17908 South Figueroa. Witnesses
5 also recalled seeing Lorber's operations result in substantial flooding of Lorber's and Elixir's
6 properties. On the eastside outside the building on the 17908 South Figueroa facility, to the north
7 of the Lorber tank farm, Lorber constructed and operated a large discharge vault, or sump, that
8 connected to the Los Angeles County Sanitation Sewer. The Lorber vault/sump was about 8 feet
9 wide and about 8 feet long. The Lorber discharge vault was connected to an underground sewer
10 line that ran from the vault/sump eastward through Elixir's 17905 and 17809 South Broadway
11 properties to the main sewer system under Broadway.¹⁴ Releases to the sewer continued from the
12 early 1970s when Lorber began its operations until operations ceased in early 2006. Lorber used
13 the 17920 South Figueroa facility to manufacture fabrics. To the east of the building at this
14 facility, Lorber operated two or three large boilers. These boilers were installed in about 1988.
15 Lorber had an average daily water consumption of over 700,000 gallons.¹⁵

16 From 1973 to 2005, Lorber's operations disposed of substantial amounts of wastewater
17 that had a very strong chemical smell behind Lorber's buildings on 17920 and 17908 Figueroa.
18 The source of this waste discharge water was Lorber's operations. Elixir never disposed of any
19 chemicals near this area. Lorber's waste water discharge created large muddy pools along the
20 property line between Lorber's 17920, 17908 and 17818 South Figueroa facilities and Elixir's
21 17925, 17905 and 17809 South Broadway properties. The property line area was dirt and not
22 paved with concrete or asphalt during this time period. This particular area was the low point of
23 all of Elixir and Lorber's properties.¹⁶ At times, the Lorber's waste discharge water had a strong
24 smell. The Lorber waste water discharge pooled would greatly increase in size after a rain.
25 Sometimes, the Lorber waste water discharge pooled up near the buildings on Elixir's 17925,

26
27 ¹³ Exhibit 6, Figure demonstrating the low point of the Sahm and Lorber properties and the Lorber sewer lines.

¹⁴ Exhibit 6, Figure demonstrating the low point of the Sahm and Lorber properties and the Lorber sewer lines.

¹⁵ Exhibit 3, Ferus Article, p. 54.

¹⁶ Exhibit 6, Figure demonstrating the low point of the Sahm and Lorber properties and the Lorber sewer lines.

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1 17905, 17809 South Broadway, and even down to the south property boundary of 18037 South
2 Broadway.

3 From about 1991 to about 2005, the Lorber waste water discharge pool remained the
4 same, except Lorber conducted more operations over and through the pool of water because it
5 leased 17905 and 17809 South Broadway from Elixir during this time.

6 The Regional Board staff and the CAO consider none of the aforementioned documented
7 evidence of Lorber's extensive textile operations.

8 **ii. Lorber's Use Of TCA, 1, 4-Dioxane, Toluene, Xylene And Benzene**

9 As demonstrated below, Lorber's dry cleaning operations and textile operations used
10 COCs as well as PCE.

11 **a. Lorber's Use Of COCs In Its Dry Cleaning Operations**

12 The documents cited below demonstrate that Lorber's dry cleaning operations were not
13 limited to the 1974 to 1978 time period, which is the sole focus of the CAO. Instead, the
14 documents below demonstrate that Lorber conducted dry cleaning operations from about 1972 to
15 1987 and that such operations used COCs (*e.g.* TCA, 1, 4-dioxane, toluene, xylene, and benzene)
16 as well as PCE. And it is important to keep in mind that the biotransformation pathway for PCE
17 is to TCE then to either: trans-DCE or cis-DCE or 1, 1, DCA and then on to vinyl chloride, all
18 such constituents are present in the groundwater beneath Lorber's property.

19 Lorber has made self-serving and unsupported statements that it conducted dry cleaning
20 operations until only 1978. However, documents indicate that Lorber conducted dry cleaning
21 operations until 1987, as Lorber paid and maintained a permit from the APCD for such dry
22 cleaning operations until 1987.¹⁷ Unfortunately, the CAO improperly focuses only on Lorber's
23 limited dry cleaning operations and use of PCE. Also, the CAO is inappropriate because it
24 ignores Lorber's extensive textile operations from the early 1970s to 2005, which are well
25 documented by other regulators and Lorber as detailed below.

26 Lorber's Material Safety Data Sheets ("MSDS") indicate that Lorber used the following
27 chemicals in its operations: acetone, lacquer thinner (comprised of toluene, methyl ethyl ketone,

28 ¹⁷ Exhibit 4, Lorber's APCD permit applications, field reports, and related documents.
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1 methyl isobutyl ketone), toluene, Intrawet 8377 (comprised of isopropyl alcohol and dyeing
2 auxiliary), and PCE.¹⁸ Also, Lorber used a synthetic solvent dry cleaning unit that used PCE as
3 well as a 500-gallon PCE storage tank – not a 200-gallon PCE storage tank referenced in the
4 CAO. PCE was used as one of the cleaning solvents for the dry cleaning machine. The APCD’s
5 Field Report dated July 9, 1974 states that Lorber’s dry cleaning unit was operated about 2 hours
6 a day five days a week and averaged about 300 gallons per month of solvent “make-up.”¹⁹ Also,
7 Lorber’s Field Report concludes that Lorber’s unit emitted daily about 186.9 pounds of
8 “solvent.”²⁰

9 The composition of Lorber’s solvent “make-up” is not further described in the documents.
10 Conveniently, Lorber’s documents fail to describe the composition of the solvent “make-up” and
11 “solvent” referenced in the documents concerning Lorber’s operations. However, several studies
12 of the textile industry indicate the types of chemicals used in operations similar to Lorber’s
13 operations. As such, we identify below the chemicals and solvents that the textile and dry
14 cleaning industries used during the time period Lorber conducted such operations.

15 The US EPA’s “Consumer Factsheet on: 1, 1, 1-Trichloroethane” states: TCA “is an
16 organic liquids with a chloroform-like odor. It is largely used as a solvent removing grease from
17 machined metal products, in textile processing and dyeing as in aerosols.”²¹

18 In the early 1980s, Dow Chemical marketed TCA as a dry cleaning solvent under the
19 name Dowclene LS®.²² TCA was used by drycleaners as a pre-cleaning and spotting agent as
20 well as a carrying agent in fabric waterproofing and in stain repellents.²³ Also, the State Coalition
21 for Remediation of Drycleaners’ *Chemicals Used In Drycleaning Operations* January 2002,
22 revised January 2009 report indicates on pages four and five that documented impurities (ranging
23 from 1 to 5%) of PCE used in dry cleaning, include: TCA, toluene, carbon tetrachloride,

24 ¹⁸ Exhibit 7, Lorber’s MSDS.

25 ¹⁹ Exhibit 4, Lorber’s APCD permit applications, field reports, and related documents.

26 ²⁰ Exhibit 4, Lorber’s APCD permit applications, field reports, and related documents.

27 ²¹ Exhibit 8, EPA’s Consumer Factsheet on TCA.

28 ²² See The Dry Clean Coalition’s *A Chronology of Historical Developments in Drycleaning* November 2007 report; see also, Santa Clara Valley Water District’s *Study of Potential for Groundwater Contamination from Past Dry Cleaner Operations in Santa Clara County*, by Thomas K.G. Mohr, PG, EG, HG, page 102.

²³ See the State Coalition for Remediation of Drycleaners’ *Chemicals Used In Drycleaning Operations* January 2002, revised January 2009 report, pages 7 & 11.
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1 dichloromethane, TCE, and other chlorinated solvents. Accordingly, Lorber's dry cleaning
2 operations from the early 1970s until at least 1987 more likely than not used TCA.

3 **b. Lorber's Use Of COCs In Its Textile Operations**

4 TCA, PCE, and TCE were all used in the textile industry for the scouring of wool. TCA
5 was also used in the textile industry for textile dyeing.²⁴ TCA and PCE were used cleaning fluids
6 for the removal of spinning oils and lubricants from equipment by textile processors, such as
7 Lorber's 52 knitting machines.²⁵ In fact, a report from California's Department of Toxic
8 Substances Control ("DTSC") states: "Cleaning equipment with chlorinated solvents is a
9 common practice in the textile industry. Chlorinated solvents such as PCE, TCA, and TCE are
10 used to remove oil, wax, grease, and lubrication fluids from equipment."²⁶ DTSC estimated that
11 in the early 1990s, the textile industry in the United States used about 7 thousand metric tons of
12 TCA.²⁷

13 Literature about the textile industry states that the constituents of printing paste include
14 the COCs (e.g. TCA, toluene, and xylene).²⁸

15 The US EPA's "Technical Fact Sheet – 1, 4-Dioxane" dated January 2014 states that "1,
16 4-Dioxane is used specifically as "a wetting and dispersing agent in textile processes."²⁹

17 It is well documented that benzene, other heavy metals, and formaldehyde were used in
18 the textile industry, specifically dying process as a fixing agent. Also, the textile industry used
19 dichlorobenzene as an emulsifying agent in the dyeing of polyester fibers, which was one of the
20 processes performed in Lorber's operations.³⁰ The United States Environmental Protection
21

22 ²⁴ Exhibit 8, EPA's Consumer Factsheet on TCA.

23 ²⁵ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership,
Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology
24 Division of DTSC, dated June 1991, page 1.

25 ²⁶ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership,
Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology
26 Division of DTSC, dated June 1991, page 31.

27 ²⁷ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership,
Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology
28 Division of DTSC, dated June 1991, pages 1 & 33, Table 2.2.

29 ²⁸ Exhibit 10, Indulgent yet responsible, O Ecotextiles, Textile printing and the environment.

30 ²⁹ Exhibit 9, EPA's Technical Fact Sheet – 1, 4-Dioxane (January 2014).

³⁰ See *Textile Goods Industry: History and Health and Safety*, Encyclopaedia of Occupational Health and Safety,
Chapter 89 Textile Goods Industry by Leon J. Warshaw.
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1 Agency's Technical Factsheet on: xylenes in the National Primary Drinking Water Regulations
2 states that textile finishing was one of the major industries that used xylenes in its operations. It
3 is likely that Lorber used xylenes to extract dyes from aqueous solutions as such operations are
4 common in the textile industry.

5 The Regional Board staff and the CAO consider none of such documented evidence of
6 Lorber's use of COCs as well as PCE for an extended period of time.

7 **iii. Lorber's Releases Of TCA, 1, 4-Dioxane, Toluene, Xylene And Benzene**

8 Lorber's former environmental engineer, Martin Ferus wrote an article about Lorber's
9 extensive textile operations. Mr. Ferus's article states that Lorber is "in the business to make
10 money and generally do[es] not show a particular interest in environmental issues. . . ." ³¹
11 Lorber's practice was to discharge the printing paste ³² directly into the sewer; in fact, Mr. Ferus's
12 article states: "[a]ll the paste in the pipes, pumps and squeegees is lost and washed to the drain
13 when the rest printing lot is prepared." ³³ Several SCAQMD documents state that "the rest of the
14 oxidizing and accelerating chemicals would be drained to the sewage with the washing solution"
15 from Lorber's textile operations. ³⁴ A 1983 Lorber submittal to the SCAQMD states that Lorber's
16 operations include draining oil from a Smog Hog to a sump into the sewer. ³⁵ Consequently,
17 Lorber discharged printing paste containing TCA, toluene and xylene into the sewer.

18 It is important to understand that Lorber's sewer line travels north-south along the Lorber-
19 Sahm property boundary and then turns directly east and through the entire length of Sahm's
20 property between Sahm's 17905 and 17809 South Broadway properties as demonstrated on
21 Exhibit 6.

22 Also, historical technical reports of soil sampling on Lorber's property, which are in the
23 record, demonstrate that Lorber's property is the source for TCA, 1, 4-dioxane as well as PCE
24 and its daughter constituents (e.g. TCE, 1, 1-DCE, and vinyl chloride). Exhibit 13 consists of
25 Figures with supporting data tables that demonstrate Lorber's textile and dry cleaning operations

26 ³¹ Exhibit 3, Ferus Article, p. 52.

27 ³² See footnote 27, referencing the constituents of printing paste are COCs.

28 ³³ Exhibit 3, Ferus, Article, p. 56-57.

³⁴ Exhibit 11, SCAQMD documents stating Lorber's textile operations released waste into sewer.

³⁵ Exhibit 12, Lorber's 1983 submittal to SCAQMD.

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1 are the source of such contamination on Lorber's property as well as portions of Sahn's
2 properties.

3 In 1999, Lorber's Title V applications to the SCAQMD indicate that Lorber's operations
4 used and released of various volatile organic compounds.³⁶

5 In 2001, the SCAQMD Facility Information Detail records demonstrate that Lorber's
6 operations released by emissions into the air the following:

- 7 • .594 tons per year of reactive organic gases,
- 8 • 1.525 pounds per year of benzene,
- 9 • 1.811 pounds per year of ethyl benzene,
- 10 • 6.978 pounds per year of toluene, and
- 11 • 5.185 pounds per year of xylene.³⁷

12 The historical, industrial and regulatory documents demonstrate that Lorber's operations
13 used and released TCA, 1, 4-dioxane, toluene, xylene and benzene. Consequently, Lorber is a
14 discharger of TCA, 1, 4-dioxane, toluene, xylene, benzene, and PCE (and its daughter
15 constituents), pursuant to Water Code sections 13304(a) and (c)(1).

16 The Regional Board staff should have complied with Resolution 92-49 by performing a
17 reasonable investigation into the readily available historical documentation, industry-wide
18 operational practices, and reports on Lorber's textile operations, use and releases of COCs and
19 PCE. If the Regional Board staff had complied with Resolution 92-49, then the CAO would not
20 have inappropriately and improperly ignored Lorber's textile operations, Lorber's use and
21 releases of COCs before it issued the CAO. Unfortunately, the Regional Board did not comply
22 with Resolution 92-49. Accordingly, the CAO is inappropriate and improper.

23 **C. The CAO Inappropriately and Improperly Considered Lorber's Comments**

24 The CAO inappropriately and improperly considered Lorber's comments because
25 Lorber's comments were inconsistent with the factual and regulatory record.
26

27 ³⁶ Exhibit 14, Lorber's 1999 Title V application to SCAQMD.

28 ³⁷ Exhibit 15, SCAQMD Facility Information Detail ("FID") reports for Lorber's property. Exhibit 15 also includes
SCAQMD's FID reports Lorber's property with similar emissions of COCs from 2002 to 2004.

1 The CAO parrots Mr. Francis's December 31, 2014 letter by discussing how COCs (*e.g.*
2 TCA, 1, 4-dioxane, toluene and xylene) were only used at Sahm's 18037 South Broadway
3 property and argues that those COCs have been detected at locations downgradient from the
4 18037 South Broadway property to justify the inappropriate conclusion that contamination from
5 Sahm's property migrated downgradient to Lorber's site – while at the same time the CAO
6 ignores Lorber's extensive textile operations that used and released the COCs.

7 Mr. Unger's cover letter for the CAO states that the Regional Board considered the
8 comments argued in a December 31, 2014 letter from Lorber's lawyer, Michael Francis.³⁸ Mr.
9 Francis's December 31, 2014 letter argues that Sahm is solely responsible for the TCA and 1, 4-
10 dioxane contamination detected on Lorber's property because "[t]here is no evidence that TCA or
11 1, 4-dioxane was ever used at the Lorber Site."³⁹ Mr. Francis's letter concludes that the Regional
12 Board should order Sahm to investigate and remediate such contaminants that have impacted
13 Lorber's property.

14 As addressed in section 4 B above, the factual and regulatory record demonstrate that
15 Lorber used and released substantial quantities of COCs (*e.g.* TCA, 1, 4-dioxane, toluene, xylene
16 and benzene) as well as PCE in Lorber's operations at its property. Also, Lorber's own soil
17 investigation at its property reported detections of TCA and its daughter constituents in the
18 shallow soil at Lorber's property. Accordingly, the foundation of Mr. Francis's argument is false.

19 Unfortunately, the CAO parrots Mr. Francis's false argument. The Regional Board should
20 have complied with Resolution No. 92-49 by performing its own reasonable investigation into the
21 potential sources for the COC detections. If the Regional Board would have performed such a
22 reasonable investigation, rather than blindly adopting Mr. Francis's argument, then the Regional
23 Board would have discovered the readily available historical and regulatory record demonstrating
24 that Lorber used and released substantial amounts of COCs (*e.g.* TCA, 1, 4-dioxane, toluene,
25 xylene, and benzene). The historical and regulatory record is discussed in detail in section 4 D
26 below as well as in the accompanying Exhibits.

27
28 ³⁸ Exhibit 1, CAO.

³⁹ Exhibit 16, Mr. Francis's December 31, 2014 letter commenting on Draft CAO.

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1 Therefore, the foundation for the CAO is inappropriate and improper as it requires Lorber
2 to only assess and remediate PCE at Lorber's property while completely ignoring Lorber's
3 substantial releases of COCs from its textile and dry cleaning operations.

4 **D. CAO Is Premised Upon Inappropriate And Improper Science And Data**

5 The CAO inappropriately relies upon limited data provided by Lorber's environmental
6 consultant, Aqua Science Engineers, and is deliberately directed to put the blame on Sahn by
7 merely providing partial information on Lorber's operation and releases of COCs. For example,
8 the Regional Board staff and the CAO inappropriately relied upon the following unsupported
9 conclusions argued by Lorber's consultant:

10 • the record demonstrates that Lorber's releases were not limited to the PCE tank,
11 but also included all areas associated with Lorber's textile operations and wastewater discharge
12 areas (including Lorber's surface runoff on the eastern property line of Lorber, and Lorber's
13 sewer lines located on the eastern property line of Lorber and between Sahn's 17809 and 17905
14 South Broadway properties as well as along South Broadway along the eastern boundary of the
15 Sahn's properties);⁴⁰

16 • the significant environmental releases from Lorber's dry cleaning operation is the
17 substantial use of make-up PCE amounting, according to the Exhibit 4, the APCD inspection
18 documented 300 gallons per month;

19 • the record demonstrates that Lorber's releases into the subsurface included COCs,
20 not only limited to PCE and its degradation products;

21 • the characterization of the chemicals used in Lorber's operations, Lorber's release
22 sources, and extent of releases of Lorber's chemicals have not been reasonably investigated by
23 the Regional Board staff;

24 • Lorber's consultant's assessment along Lorber's the sewer line and surface runoff
25 low point, which are located on the eastern property line, was a very limited assessment; and,
26
27

28 ⁴⁰ Exhibit 6, Figure demonstrating the low point of the Sahn and Lorber properties and the Lorber sewer lines.
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1 • Lorber's consultant's limited assessments indicated detections of elevated
2 concentrations of TCA daughter constituents and 1,4-dioxane at Lorber's property have higher
3 concentrations than those on Sahn's property to the east and southeast of Lorber's property.⁴¹

4 In drafting the CAO, the Regional Board failed to consider the fact that Lorber's
5 properties (on which HP-2 and CPT-3 are located) are the source of TCA, 1,4-dioxane, benzene
6 and xylene releases, as discussed above, and that the characterization and assessment of the
7 release of these chemicals and other textile operation chemicals at Lorber has been very limited,
8 only assessing the areas of dry cleaning operations.

9 Additionally, the Regional Board failed to consider that the highest groundwater
10 concentrations detected of 1,1-DCE, 1,1-DCA, and 1,2-DCA during the 2000 to 2005
11 assessments/sampling performed both on Lorber's and Sahn's properties were from observed in
12 wells GMW1, CPT-1, CPT-2, and HP-3, all located upgradient/crossgradient to HP-2 and CPT-3,
13 at Lorber's property near the potential release areas (GMW1 and CPT-1 in the surface ponding
14 area and along Lorber's sewer line, CPT-2 along the sewer line, and HP-3 near the dye
15 bathouses). Because, much lower concentrations were detected in samples taken between Sahn's
16 18037 South Broadway property and Lorber's property, it demonstrates that the plume from
17 Elixir's operations did not impact the Lorber groundwater that is 1,000 feet from the Elixir
18 release, as incorrectly stated in the CAO, and that the sources of the groundwater impact at
19 Lorber's properties are from releases from Lorber's operations.⁴²

20 Also, the Regional Board ignored the 2001 Aqua Science report's soil detections
21 demonstrate that Lorber's property is the source of:

- 22 • 6 ppb of 1, 1-DCE at 5 feet bgs;
- 23 • 10 ppb of 1, 1-DCA at 15 feet bgs; and,
- 24 • 6 ppb at 5 feet bgs and 16 ppb at 15 feet bgs of 2-chloro-toluene.

25 _____
26 ⁴¹ Exhibit 13, Figures and Tables of Lorber's plumes. And note, Lorber's sewer line, and surface runoff areas as
evident from results from HP1 and MW65.

27 ⁴² Exhibit 13, Figures and Tables of Lorber's plumes, including: Table 1, May 2000 BAS Groundwater Investigation
28 Report; Table groundwater result summary 2004-2005 from 2006 Invirotreat remediation summary report; GW
Results Table 4 from 2002 ASE Soil and GW Investigation Report; and GW Results Table 1 from 2004 ASE GW
Investigation.
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1 These soil detections were all detected in LGP-5, which indicates points of releases on
2 Lorber's property, which is located in the dirt strip area near Lorber's sewer line along the
3 Lorber/Sahm property boundary. The 2001 report also indicated that MTBE at 11 ppb at 15 feet
4 bgs was detected in the soil at LGP-1.⁴³

5 **E. The CAO Inappropriately And Improperly Discusses Elixir/Sahm**

6 The CAO inappropriately and improperly discusses Elixir's former operations at Sahm's
7 properties. For example, the CAO inappropriately states the following specifically about
8 Elixir/Sahm:

- 9 • "Elixir Industries is located adjacent and directly up-gradient from the Site. Elixir
10 Industries has discharged wastes and investigations conducted at the property
11 formerly owned by Elixir Industries indicate that underlying soil and groundwater
12 are impacted by chemicals, which also include previously identified VOCs.⁴⁴
According to the analytical results, the groundwater plume from Elixir Industries
has migrated offsite beneath the Lorber site. The Regional Board is also
overseeing assessment, cleanup, and remediation of the Elixir site."⁴⁵
- 13 • "Conduct Remedial Action: Develop and implement a plan for the cleanup of
14 waste in the soil matrix, soil vapor, and groundwater and abatement of the effects
15 of only the waste that originated on the Site; however, you are advised to consider
16 potential effects from comingling of the Elixir plume during remediation (see item
17 6 c on page 3). . . ."⁴⁶

18 The CAO is directed to Lorber and TGA Carson Properties, LLC⁴⁷ – not to Elixir/Sahm.
19 Accordingly, these statements in the CAO specifically about Elixir/Sahm are inappropriate and
20 improper.

21 Also, the CAO improperly omits Elixir/Sahm's over thirty year history of extensive
22 assessment and remediation (e.g. fifteen year operation of a pump and treat remediation system in
addition to source removal all performed under Regional Board oversight). The CAO
inappropriately ignores Lorber's use and release of COCs as well as PCE at its own site. The

23 ⁴³ Exhibit 13, Aqua Science Engineers' Soil and GW Investigation Report 2002, Table 3.

24 ⁴⁴ Exhibit 1, CAO, page 3, states: "The following volatile organic compounds (VOCs) have been detected in soil
and groundwater: PCE, trichloroethylene (TCE), cis 1, 2-dichloroethylene (cis 1, 2-DCE); vinyl chloride, 1,1,1-
25 trichloroethane (TCA), 1, 1-dichloroethane (1, 1-DCA); 1,1-dichloroethane (1, 1-DCE), benzene, toluene, total
xylenes, and 1, 4-dioxane."

26 ⁴⁵ Exhibit 1, CAO, page 3.

27 ⁴⁶ Exhibit 1, CAO, page 8.

28 ⁴⁷ Lorber owned and operated the 17818, 17908, 17920 S. Figueroa Street, Carson properties until about 1999 when
the 17908 and 17920 S. Figueroa Street, Carson properties were purchased by TGA Carson Properties LLC and the
17818 S. Figueroa Street property was purchased by TGA Carson Properties II LLC. For these reasons discussed
Lorber and both TGA LLCs should be subject to the CAO.
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1 CAO improperly ignores the shallow soil detections of COCs and their daughter constituents on
2 Lorber's property. The CAO ignores the topographical features (*i.e.* a low-point) at the Lorber-
3 Sahn property boundary as well as Lorber's sewer line, which travels along the Lorber-Sahn
4 property boundary and then turns east across Sahn's property.⁴⁸ The CAO inappropriately
5 ignores the fact that the source of COCs as well as PCE is Lorber's property and the probably
6 source of such contamination on Sahn's property.

7 Accordingly, the CAO's specific references to Elixir/Sahn are inappropriate and
8 improper.

9 **5. Manner In Which Petitioner Is Aggrieved**

10 Sahn is aggrieved by the CAO as follows:

11 (A) as discussed above in Section 4 B, the CAO improperly ignores Lorber's extensive
12 textile operations, which used and released substantial quantities of COCs as well as PCE;

13 (B) as discussed above in Sections 4 C and D, the CAO improperly ignores the fact
14 that Lorber is the source for COC and PCE contamination of the soil, soil vapor, and groundwater
15 at Lorber's property and Sahn's property;

16 (C) as discussed above in Section 4 E, the CAO improperly (and inaccurately)
17 references Elixir/Sahn at page 3 and page 8; and,

18 (D) the required actions in the CAO are improperly limited to "the Extent of Wastes
19 originating at the Site in Soil, Soil Vapor and Groundwater," which inappropriately imply that
20 Lorber is limited to contamination of only PCE given the finding on page 2, paragraph 4 in the
21 CAO.

22
23 **6. Specific Action Requested Of The State Board**

24 Sahn hereby requests that the State Board exercise its discretion and accept this Petition
25 and modify the CAO pursuant to Section 2052(a)(2)(B) on the grounds set forth under Section 4
26 above, which is incorporated by reference herein. Sahn hereby requests that the State Board:

27
28 ⁴⁸ Exhibit 6, Figure demonstrating the low point of the Sahn and Lorber properties and the Lorber sewer lines.
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1 (A) modify the CAO with the modifications indicated on the attached revised CAO
2 attached hereto as Exhibit 17; and,

3 (B) direct the Regional Board to comply with the modified CAO.

4 **7. Statement of Points And Authorities In Support Of Legal Issues**

5 Please see Section 4 above, which is incorporated herein by reference. Sahn reserves the
6 right to supplement this points and authorities in support of this Petition.

7 **8. Statement That A Copy Of Petition Has Been Sent To The Regional Board**

8 A copy of this Petition has been sent concurrently to Samuel Unger, Executive Officer of
9 the Regional Board and to legal counsel for the discharger TGA Carson Properties, LLC and
10 TGA Carson Properties II, LLC, Michael Francis of Demetriou, Del Guercio, Springer & Francis.

11 **9. Issues And Objections Raised Before The Regional Board**

12 Water Code section 2050 (a)(9) requires Sahn to state the substantive issues or objections
13 raised in this Petition that were raised before the Regional Board, or an explanation of why Sahn
14 was not required or was unable to raise these substantive issues or objections before the Regional
15 Board.

16 On September 22, 2006, Sahn submitted a petition (SWRCB/OCC File A-1774) to the
17 State Board requesting an order that the Regional Board direct Lorber to properly assess and
18 remediate the contamination from its operations. The petition was dismissed by the State Board.

19 On November 5, 2014, Sahn timely submitted comments concerning Regional Board's improper
20 limitations of the draft CAO to Lorber.⁴⁹ On July 10, 2015, Sahn's counsel, Kutak Rock,
21 submitted additional comments about Lorber's operations, use and releases of COCs, including
22 many of the Exhibits attached to this Petition (specifically Exhibits 4, 6, and 7).⁵⁰ These letters
23 and petition are in the Regional Board's record, but unfortunately the Regional Board improperly
24 failed to consider such information.

25 Furthermore, the Regional Board staff should have complied with Water Code sections
26 13304 and 13267 as well as State Board Resolution No. 92-49 by reasonably investigating the

27 ⁴⁹ Exhibit 18, Sahn's November 5, 2014 letter to Regional Board.

28 ⁵⁰ Exhibit 19, Kutak Rock's July 10, 2015 letter to the Regional Board.

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1 readily available evidence (historical, industrial and regulatory) of Lorber's extensive dry
2 cleaning and textile operations as well as Lorber's use and releases of COCs and PCE as the
3 source of the contamination. The record demonstrates that Regional Board staff failed to make a
4 reasonable effort to identify the discharger (*e.g.* Lorber) associated with the discharges at
5 Lorber's property in violation of the Water Code and Resolution No. 92-49.

6 Accordingly, the State Board should consider the record before the Regional Board as
7 well as the Exhibits attached to this Petition in its consideration of modifying the CAO.

8 **10. Petitioner's Request For Hearing To Present Additional Evidence**

9 Water Code section 2050.6 (b) states that Sahm may request that the State Board conduct
10 a hearing to consider testimony, other evidence, and argument and that such a request shall be
11 supported by a summary of contentions to be addressed or evidence to be introduced and a
12 showing of why the contentions or evidence have not been previously or adequately presented.

13 Sahm hereby requests that the State Board exercise its discretion and conduct a hearing on
14 this matter for the purpose of oral argument and to receive additional evidence.

15 Pursuant to Water Code section 2050.6 (a)(1), Sahm's summary of contentions to be
16 addressed are: the State Board should consider the substantial issue⁵¹ that the CAO should be
17 modified to consider the substantial historical, industrial and regulatory evidence (*e.g.* documents
18 from SCAQMD, DTSC, and US EPA) discussed in detail in Section 4 B and C above (as well as
19 the referenced Exhibits) of Lorber's extensive dry cleaning and textile operations, which used,
20 released and contaminated Lorber's property with COCs, PCE and its daughter constituents.

21 Pursuant to Water Code section 2050.6(a)(2), the nature of the evidence and facts to be
22 provided are the historical, industrial and regulatory evidence discussed in detail in Section 4 B
23 and C above (as well as the referenced Exhibits) of Lorber's extensive dry cleaning and textile
24 operations, which used, released and contaminated Lorber's property with COCs and PCE.

25 The specific evidence to be presented by Sahm include: reports in the Regional Board
26 record, the Exhibits attached to this Petition, as well as potential testimony from Sahm's technical
27 consultants, Sahm's principal, former Elixir employee, and argument from Sahm's legal counsel.

28 ⁵¹ See Cal. Code of Regs, tit. 23, § 2052, subd. (a).
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Some of such evidence is contained in the Regional Board record as described in Section 9 above, however there are additional historical, industrial, and regulatory reports that are not contained in the record. Such reports are attached as Exhibits to this Petition. In September 2006, November 2014, July 10, 2015, and August 21, 2015, Sahn attempted to direct the Regional Board staff to the readily available reports and other evidence on Lorber's extensive dry cleaning and textile operations as well as Lorber's use and releases of COCs and PCE. Unfortunately, the Regional Board improperly ignored Sahn's efforts and the readily available evidence.

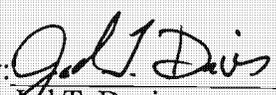
The Regional Board is required by the Water Code and Resolution No. 92-49 to reasonably investigate the readily available evidence (historical, industrial and regulatory) of the contamination at Lorber's property, which includes a reasonable investigation of Lorber's operations. The Regional Board failed to conduct a reasonable investigation.

Accordingly, the State Board should consider the aforementioned additional evidence and supporting arguments pursuant to Water Code section 2050.6.

For these reasons stated herein, Sahn respectfully requests the State Board modify the CAO as requested.

Dated: September 9, 2015

Respectfully Submitted:

By: 
Jad T. Davis
KUTAK ROCK LLP
Counsel for Petitioner
Sahn Broadway Properties, LLC

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PROOF OF SERVICE

The Irvine Company v. California Pacific Homes, etl
Orange County Superior Court /Case Number 30-2012-00577644-CU-CD-CXC

STATE OF CALIFORNIA, COUNTY OF ORANGE

I am employed in the City of Irvine in the County of Orange, State of California. I am over the age of 18 and not a party to the within action. My business address is 5 Park Plaza, Suite 1500, Irvine, California 92614.

On September 10, 2015, I served on all interested parties as identified on the below mailing list the following document(s) described as:

**SAHM BROADWAY PROPERTY, LLC'S PETITION FOR REVIEW OF CLEANUP
AND ABATEMENT ORDER NO. R4-2015-0131; REQUEST FOR HEARING**

(BY OVERNIGHT DELIVERY/COURIER) I delivered an envelope or package to a courier or driver authorized by the express service carrier; or deposited such envelope or package to a regularly maintained drop box or facility to receive documents by the express service carrier with delivery fees provided for.

State Water Resource Control Board
Office of Chief Counsel
Adrianna M. Crowl
P.O. Box 100
Sacramento, CA 95812-0100

(BY MAIL, 1013a, 2015.5 C.C.P.) I deposited such envelope in the mail at Irvine, California. The envelope was mailed with postage thereon fully prepaid. I am readily familiar with the firm's practice for collection and processing correspondence for mailing. Under that practice, this(these) document(s) will be deposited with the U.S. Postal Service on this date with postage thereon fully prepaid at Irvine, California in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

(BY ELECTRONIC MAIL.) The above document was served electronically on the parties appearing on the service list associated with this case. A copy of the electronic mail transmission[s] will be maintained with the proof of service document. .

(STATE) I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on September 10, 2015, at Irvine, California.



Danielle Weber

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EXHIBITS
IN SUPPORT OF
SAHM BROADWAY PROPERTY, LLC'S PETITION FOR REVIEW OF CLEANUP
AND ABATEMENT ORDER NO. R4-2015-01312

- Exhibit 1**, Cleanup And Abatement Order No. R4-2015-01312
- Exhibit 2**, Lorber's Documents To AQMD Describing Its Extensive Textile Operations
- Exhibit 3**, *Treatment Of Wastewaters From Textile Processing*, Martin Ferus (Berlin 1997)
- Exhibit 4**, Lorber's APCD Permit Applications, Field Reports, And Related Documents
- Exhibit 5**, SCAQMD Field Report For Lorber Dated March 25, 1991
- Exhibit 6**, Figures Demonstrating Features Of The Sahn And Lorber Properties
- Exhibit 7**, Lorber's MSDS
- Exhibit 8**, EPA's Consumer Factsheet On TCA
- Exhibit 9**, EPA's Technical Fact Sheet – 1, 4-Dioxane
- Exhibit 10**, Indulgent Yet Responsible, O Ecotextiles, Textile Printing And The Environment
- Exhibit 11**, SCAQMD Documents Stating Lorber Released Waste Into The Sewer
- Exhibit 12**, Lorber's 1983 Submittal To SCAQMD
- Exhibit 13**, Figures And Tables Of Lorber's Plume
- Exhibit 14**, Lorber's 1999 Title V Application To SCAQMD
- Exhibit 15**, SCAQMD Facility Information Detail Reports On Lorber's Property
- Exhibit 16**, Mr. Francis's December 31, 2014 Letter Commenting On Draft CAO
- Exhibit 17**, Sahn's Proposed Modified CAO
- Exhibit 18**, Sahn's November 5, 2014 Letter To Regional Board
- Exhibit 19**, Kutak Rock's July 10, 2015 Letter To Regional Board

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- Exhibit 19**, Kutak Rock's July 10, 2015 Letter To Regional Board

EXHIBIT

1



Los Angeles Regional Water Quality Control Board

August 12, 2015

Mr. Tom Lorber and Ms. Anita Lorber
Lorber Industries, Lorber Industries of California, and
TGA Carson Properties, LLC
C/O

Mr. Michael A. Francis
DEMETRIOU, DEL GUERCIO, SPRINGER &
FRANCIS, LLP
700 South Flower Street, Suite 2325
Los Angeles, California 90017

Certified Mail
Return Receipt Requested
Claim No. 7012 3460 0002 9486 2790

SUBJECT: CLEANUP AND ABATEMENT ORDER NUMBER R4-2015-0131
SITE: LORBER INDUSTRIES, 17908 SOUTH FIGUEROA, CARSON, CALIFORNIA 90248 (SITE CLEANUP NO. 1056; SITE ID NO. 2040022)

Dear Mr. Tom Lorber and Ms. Anita Lorber:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles County and Ventura County. The site is situated within the jurisdiction of the Regional Board.

Enclosed is Cleanup and Abatement Order (CAO) No. R4-2015-0131, directing Lorber Industries, Lorber Industries of California, and TGA Carson Properties, LLC to assess, monitor, and cleanup and abate the effects of wastes discharged to soil and groundwater at the Lorber Industries, Carson, California. This Order is issued pursuant to section 13304 of the California Water Code.

A draft of this CAO was provided to you on September 19, 2014, inviting comments. Comments were provided on November 6, 2014 by Invirotreat, Inc., and December 31, 2014 by Mr. Michael A. Francis of DEMETRIOU, DEL GUERCIO, SPRINGER & FRANCIS, LLP. The attached document, titled "Regional Board Response to Comments – Draft Cleanup and Abatement Order No. R4-2014-XXXX," summarizes the comments received and the responses to those comments.

Mr. Tom and Ms. Anita Lorber - 2 -
Lorber Industries, Lorber Industries of California,
TGA Carson Properties, LLC
SCP 1056
CAO No. R4-2015-0131

August 12, 2015

If you have any questions, please contact Mr. Adnan Siddiqui (project manager) at (213) 576-6812 (asiddiqui@waterboards.ca.gov) or Remediation Section Program Manager, Dr. Arthur Heath at (213) 576-6725 (aheath@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

Enclosure: 1. Cleanup and Abatement Order No. R4-2015-0131
2. Regional Board Response to Comments –Draft Cleanup and Abatement Order No. R4-2014-XXXX

Cc: Mr. Jad Davis, Kutak Rock, LLP (via e-mail)
Mr. Alon Lebel, Invirotreat, Inc. (via e-mail)



EDUARDO G. BROWN, JR.
GOVERNOR

MATTHEW ROONDOREZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NUMBER R4-2015-0131
REQUIRING

LORBER INDUSTRIES, LORBER INDUSTRIES OF CALIFORNIA AND TGA CARSON
PROPERTIES LLC

TO ASSESS, CLEAN UP, AND ABATE
WASTE DISCHARGED TO WATERS OF THE STATE
(PURSUANT TO CALIFORNIA WATER CODE SECTIONS 13304 AND 13267)

AT LORBER INDUSTRIES
17908 SOUTH FIGUEROA, CARSON, CALIFORNIA 90248
(SITE CLEANUP NO. 1056; SITE ID NO. 2040022)

This Cleanup and Abatement Order (Order) is issued to Lorber Industries, Lorber Industries of California and TGA Carson Properties, LLC based on California Water Code sections 13304 and 13267, which authorize the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

The Regional Board finds that:

BACKGROUND

1. **Discharger:** Lorber Industries (Lorber), Lorber Industries of California and TGA Carson Properties-, LLC (hereinafter collectively called "Dischargers") are considered responsible parties due to their ownership of the property or conducting industrial operations at the Site.
 - a) Lorber conducted industrial operations consisting of textile and fabric manufacturing at the Site from 1972 until 2006, when it filed for Chapter 11 bankruptcy.
 - b) In 2008, the name of the owner of the real properties commonly known as 17920 and 17908 South Figueroa, Carson, California was changed to TGA Carson Properties -, LLC and the owner of real property commonly known as 17818 South Figueroa, Carson, California.

As detailed in this Cleanup and Abatement Order (Order), the Dischargers have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state which creates, or threatens to create, a condition of pollution or nuisance.

CHARLES SPRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

2. **Location:** The Site is approximately 0.5 mile east of the 110 Freeway and 0.5 mile south of the 91 Freeway in the City of Carson. Figure 1 of Attachment A presents the Site Location Map. The Site consists of:
- 17920 South Figueroa (LA County Assessor Parcel No. [APN] 7339-006-003)
 - 17908 South Figueroa (APN 7339-006-002)
 - 17818 South Figueroa (APN 7339-006-001)

In 1994, Lorber leased the Elixir Industries property located at 17905 South Broadway for its operations. In 1999, Lorber built a new building at 18037 South Broadway on Elixir Industries property.

3. **Groundwater Basin:** The Site is located in the West Coast Basin of the Los Angeles County Coastal Plain. Beneath the Site, the West Coast Basin consists of the Bellflower Aquiclude which extends from the ground surface to an approximate depth of 120 feet below the ground surface (ft bgs). The Bellflower Aquiclude consists of a series of water bearing strata (aquifers) separated by less permeable beds of silts and clays (aquicludes). The Gage Aquifer of the Lakewood Formation is located below the Bellflower Aquiclude overlying the Lynwood and Silverado Aquifers of the San Pedro Formation. Three groundwater monitoring wells located at the Site are screened within the Bellflower Aquiclude. The groundwater occurs at approximately 22 feet bgs and the groundwater flow is towards the northwest.

As set forth in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, and amended from time to time, the designated beneficial uses for groundwater in the West Coast Basin include municipal and domestic drinking water supply (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR).

SITE HISTORY

4. **Site Description and Activities:** The Site consists of three buildings that occupy approximately 5.5 acres along South Figueroa Street in City of Carson, California. The Lorber Site was undeveloped prior to 1970. Since 1972- until approximately 2006, Lorber has operated a textile knitting and dyeing operation at its facility. Textile processes used onsite include knitting, dyeing and drying of cloth, addition of fabric softeners, and printing. From 1974 to 1978, a Permac dry cleaning machine that used tetrachloroethylene (PCE) was operated onsite. A 200-gallon PCE above-ground storage tank (AST) was located on a nearby bermed concrete pad. The dry cleaning machine was reportedly removed from service in 1978. The 200-gallon PCE AST may have also been removed at that time. Lorber Industries conducted textile operations at 17920, 17908 and 17920 South Figueroa but 17920 South Figueroa is considered the actual source of PCE contamination since the dry cleaning operation were conducted at this address. The property at 17920 South Figueroa is currently vacant. The tenant at 17908 South Figueroa is Image First of Co., and it is a wash/laundry but does not use solvents. The current tenant at 17818 South Figueroa is Cedarwood-Young Co. dba Allan Co., and it is used as a warehouse/distribution center. Figure 2 of Attachment A, attached hereto and incorporated herein, depicts the Site features.
5. **Chemical Usage:** A dry cleaning machine was located at the Site inside the 17908 South Figueroa building and PCE was used as the cleaning solvent as noted in Finding

No. 4. The dry cleaning machine was operated to clean unsoiled polyester and "gavadine" cloth for clients. A 200-gallon capacity above-ground tank was used to store PCE.

EVIDENCE OF WASTE DISCHARGES AND BASIS FOR ORDER

6. **Waste Discharges:** Volatile organic compounds were discovered in groundwater at the Site in 1991 when a groundwater monitoring well was installed in the southeast corner of the Site. Subsequent investigations consisting of soil and groundwater sampling conducted at the Site confirmed that soil and groundwater beneath the Site are impacted with chemicals. In 1999, a soil gas survey was also conducted at the adjacent Elixir Industries property along the eastern boundary of the Lorber Site. The data collected from environmental investigations conducted at the Site indicate that waste discharges occurred during industrial operations at the Site.

The following volatile organic compounds (VOCs) have been detected in soil and groundwater: PCE, trichloroethylene (TCE), cis1,2-dichloroethylene (cis1,2-DCE); vinyl chloride, 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE), benzene, toluene, total xylenes and 1,4-dioxane.

Concentrations of selected chemicals detected in soil and groundwater at the Site, based on analytical testing results, are presented below:

- a) **In soil:** The maximum concentrations were: PCE 1.7 milligrams per kilogram (mg/Kg), TCE (0.577 mg/Kg), and cis1,2-DCE (1.25 mg/Kg)
- b) **In soil vapor:** PCE at 16 micrograms per liter ($\mu\text{g/L}$); TCE at 7.3 $\mu\text{g/L}$, cis1,2-DCE at 16 $\mu\text{g/L}$, vinyl chloride at 6.8 $\mu\text{g/L}$, 1,1-DCE at 21 $\mu\text{g/L}$ and benzene at 17 $\mu\text{g/L}$ were detected along the eastern property line.
- c) **In groundwater:** The historical maximum concentrations were: PCE at 9,140 $\mu\text{g/L}$; TCE at 2,130 $\mu\text{g/L}$, cis1,2-DCE at 5,670 $\mu\text{g/L}$, vinyl chloride at 2,430 $\mu\text{g/L}$, TCA at 26,000 $\mu\text{g/L}$, 1,1-DCA at 33,000 $\mu\text{g/L}$, 1,1-DCE at 11,700 $\mu\text{g/L}$, benzene at 60 $\mu\text{g/L}$, toluene at 3,600 $\mu\text{g/L}$, total xylenes at 4,000 $\mu\text{g/L}$ and 1,4-dioxane was detected at a concentration of 404 $\mu\text{g/L}$. Based on the analytical results of the multi-depth discrete groundwater sampling, the groundwater is impacted to the maximum depth of investigation of 98 feet bgs.

Elixir Industries is located adjacent and directly up-gradient from the Site. Elixir Industries has discharged wastes and investigations conducted at the property formerly owned by Elixir Industries indicate that underlying soil and groundwater are impacted by chemicals, which also include previously identified VOCs. According to the analytical results, the groundwater plume from Elixir Industries has migrated offsite beneath the Lorber site. The Regional Board is also overseeing assessment, cleanup, and remediation of the Elixir site.

7. **Source Elimination and Remediation Status:** It is reported that the dry cleaning machine was removed in 1978. The 200-gallon PCE AST was also removed from service at that time.
8. **Summary of Findings from Subsurface Investigations:** The Regional Board has reviewed and evaluated the technical reports and records in its files pertaining to the discharge, detection, and distribution of wastes at the Site and the Site vicinity. Elevated levels of chemicals including VOCs and other wastes have been detected in soil and groundwater beneath the Site.
 - a) The PCE, TCE, vinyl chloride and benzene concentrations in soil gas exceed the California Human Health Screening Levels (CHHSLs) of 0.603 µg/L, 1.77 µg/L, 0.0448 µg/L and 0.122 µg/L, respectively for commercial/industrial land use posing a potential threat to human health through vapor intrusion into the indoor air.
 - b) The PCE; TCE, cis-1,2-DCE, vinyl chloride, TCA, 1,1-DCA, 1,1-DCE, benzene, toluene and total xylenes exceed their respective State Water Resources Control Board, Division of Drinking Water (DDW) maximum contamination levels (MCLs) of 5 µg/L, 5 µg/L, 6 µg/L, 0.5 µg/L, 200 µg/L, 5 µg/L, 6 µg/L, 1 µg/L, 150 µg/L and 1,750 µg/L posing a threat to drinking water resources. The concentration of 1,4-dioxane in groundwater exceeds its notification level of 1 µg/L established by DDW.
9. **Regulatory Status:** The Regional Board has provided regulatory oversight for the Site since 2001 under the Regional Board's Site Cleanup Program (SCP). In 2005, the Regional Board approved a work plan for additional assessment at the Site. Lorber Industries ceased its operation at the Site in 2006 when it filed for Chapter 11 bankruptcy. No additional work has been performed since the approval of the work plan due to reported financial difficulties by Lorber.
10. **Impairment of Drinking Water Wells:** The Regional Board has the authority to require the Dischargers to pay for or provide uninterrupted replacement water service to each affected public water supplier or private well owner in accordance with Water Code section 13304.
11. **Sources of Information:** The sources for the evidence summarized above include but are not limited to: reports and other documentation in the Regional Board files for Elixir Industries and Lorber Industries, telephone calls and e-mail communication with the Dischargers, and their consultants, and Site visits.

AUTHORITY - LEGAL REQUIREMENTS

12. Section 13304(a) of the Water Code provides that:

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, cleanup the waste or abate the effects of the waste, or, in the case of threatened

pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup and abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

13. Section 13304(c)(1) of the California Water Code provides that:

"[T]he person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action. "

14. Section 13267(b)(1) of the California Water Code provides that:

"In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

15. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (Resolution 92-49). Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the "Statement of Policy With Respect to Maintaining High Quality of Waters in California." Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.
16. The Regional Board adopted the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which identifies beneficial uses and establishes water quality objectives to

protect those uses. The Site overlies groundwater in the West Coast Basin of the Los Angeles Coastal Plain. The designated beneficial uses of the groundwater beneath the Site are Municipal (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR). As noted in paragraph 8.c, the exceedance of applicable water quality objectives in the Basin Plan constitutes pollution as defined in Water Code section 13050(l)(1). The wastes detected in groundwater, soil matrix and vapor at the Site threaten to cause pollution and nuisance.

17. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring the cleanup and remediation of waste in groundwater that is or may be used for domestic purposes, to meet standards designed to protect human health.
18. **Public Participation:** The Regional Board may require the Dischargers to submit information or take actions to meet the requirements of California Water Code sections 13307.1 and 13307.6.

DISCHARGERS LIABILITY

19. As described in this Order and the record of the Regional Board, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have caused or permitted waste, including VOCs including PCE and its degradation products to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. The Dischargers have caused or permitted VOCs including PCE and its degradation products to be discharged or deposited where the wastes are, or probably will pose, a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air.
20. The constituents found at the Site are described in Finding 8 and the Regional Board files related to this Site. These constituents constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l), and nuisance as defined in Water Code section 13050(m). The concentration of wastes in soil and groundwater exceed water quality objectives contained in the Basin Plan, including maximum contaminant levels (MCLs).
21. This Order requires investigation and cleanup of the Site in compliance with the Water Code, the applicable Basin Plan, State Water Board Resolution 92-49, and other applicable plans, policies, and regulations. Lorber Industries, Lorber Industries of California and TGA Carson Properties, LLC as the current and former owner and operator of the Site and facilities at the Site are responsible for complying with this Order.
22. This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267. The Dischargers are required to submit the reports because, as described in the findings in this Order and the records of the Regional Board, the Dischargers discharged waste and is suspected of having discharged or discharging

waste at the Site. The reports are necessary to evaluate the extent of the impacts of the discharge of waste on water quality and public health, and to determine the scope of the remedy necessary to cleanup and abate those impacts. The burden, including costs, of the reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Additional evidence in support of requiring these reports can be found in the Regional Board files related to this Site.

CONCLUSIONS

23. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Dischargers to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order could have a significant effect on the environment, the Regional Board, or other lead agency, will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
24. Pursuant to sections 13304 and 13365 of the Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, including public participation.
25. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

REQUIRED ACTIONS

THEREFORE, IT IS HEREBY ORDERED, pursuant to sections 13267 and 13304 of the California Water Code that the Dischargers shall investigate, cleanup, and abate the effects of waste discharged or deposited at or from the Site in accordance with the following requirements:

1. **Conduct Site Assessment:** Develop, Submit and Implement a Site Assessment Work Plan(s) to Assess, Characterize and Delineate the Extent of Wastes originating at the Site in Soil, Soil Vapor and Groundwater:
 - a. Fully assess and characterize and completely delineate the vertical and lateral extent of wastes onsite and offsite in the soil matrix, soil vapor, and groundwater. The assessment will include VOCs and any other waste constituents that were discharged or deposited at the Site but the assessment need not include waste constituents that did not originate at the Site.
 - b. Identify the locations of all waste sources at the Site such as tanks, clarifiers, sumps, piping and other sources, to allow for full assessment of the extent of waste discharged at the Site.
 - c. Include a time schedule for implementation of the work proposed in the Site Assessment Work Plan.
 - d. Upon Executive Officer approval of the Site Assessment Work Plan(s) and time schedule, implement the Site Assessment Work Plan in accordance with the approved schedule. Upon completion of the work, submit a Site assessment report to the Regional Board containing the results, conclusions and recommendations.
 - e. Develop and include a Site Conceptual Model (SCM) in Site Assessment reports submitted to the Regional Board in Site Assessment reports.
 - f. Completion of the Site Assessment may require multiple work plans.
2. **Conduct Remedial Action:** Develop and implement a plan for the cleanup of waste in the soil matrix, soil vapor, and groundwater and abatement of the effects of only the waste that originated on the Site; however, you are advised to consider potential effects from comingling of the Elixir plume during remediation (see item 6 c on page 3). Specifically, you shall:
 - a. Develop a comprehensive Remedial Action Plan (RAP) for cleanup of waste that originated on the Site in the soil matrix, soil vapor and groundwater discharged or deposited at the Site and submit it to the Regional Board for review and approval. The RAP shall include, at a minimum:
 - i. Preliminary cleanup goals for soil and groundwater in compliance with State Water Board Resolution 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"). The cleanup levels must be protective of the human health, groundwater and surface water resources, environment and the beneficial uses set forth in the Basin Plan. Alternative cleanup levels to background for groundwater shall not exceed water quality objectives in the Basin Plan. Alternative cleanup levels to background for soil and soil vapor shall not exceed levels that will result in groundwater exceeding water quality objectives in the Basin Plan.
 - ii. Discussion of the technology(ies) proposed for remediation of soil matrix, soil vapor and groundwater.

- iii. Description of the selection criteria for choosing the proposed method over other potential remedial options. Discuss the technical merit, suitability of the selected method under the given Site conditions and waste constituents present, economic and temporal feasibility, and immediate and/or future beneficial results.
- iv. Description of any pilot projects intended to be implemented.
- v. Estimation of cumulative mass of wastes to be removed with the selected method. Include all calculations and methodologies used to obtain this estimate.
- vi. A proposed schedule for completion of the RAP.
- b. Revisions to or additional RAPs may be needed if the implemented remedial measure does not completely achieve all Site cleanup goals.
- c. Upon Regional Board approval of the Remedial Action Plan(s), you shall implement the RAP in accordance with the approved time schedule.
- d. You shall submit remediation progress reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B. The remediation progress reports shall document all performance data associated with the operating systems.
3. **Conduct Human Health Risk Assessment:** Upon assessment and/or implementation of the remedial action at the Site, the Dischargers shall conduct a human health risk assessment (HHRA) using concentrations of chemicals in soil, soil vapor and groundwater at the Site.
4. **Conduct Groundwater Monitoring:**
 - a. Develop a groundwater monitoring program. The Dischargers shall evaluate the groundwater monitoring program previously implemented at the Site and develop a revised plan that includes new and/or replacement wells, installed in accordance with the action required in Requirement No. 1 (page 8). In the evaluation, the Dischargers must consider all pertinent information from each well including, but not limited to, the location of the well, total depth, well construction details, subsurface lithology and groundwater zones, and historical analytical results. The revised groundwater monitoring program must also include a sampling and analysis plan.
 - b. Upon Regional Board approval of the Groundwater Monitoring Program, you shall implement the plans in accordance with the approved time schedule.
 - c. You shall submit Groundwater Monitoring Program reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in the Time Schedule, Attachment B.
 - d. Revision to the Groundwater Monitoring Program may be needed based on the results of groundwater monitoring. The Regional Board may require revisions to and

implementation of the revised Groundwater Monitoring Programs, but will consider revisions to the due dates if additional work is needed.

5. Time Schedule: The Dischargers shall submit all required work plans and reports and complete work within the schedule in any approved work plan or RAP and the time schedule listed in Attachment B attached hereto and incorporated herein by reference, which may be revised by the Executive Officer without amending this Order. No such revision will be effective unless made in writing.
6. The Regional Board's authorized representative(s) shall be allowed:
 - a) Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b) Access to copy any records that are stored under the conditions of this Order;
 - c) Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d) The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. Contractor/Consultant Qualification: As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a California registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Dischargers shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals that reflects a license expiration date.
8. This Order is not intended to permit or allow the Dischargers to cease any work required by any other Order issued by the Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by the Regional Board or any other agency. Furthermore, this Order does not exempt the Dischargers from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. The Dischargers shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the Site and shall provide a 30-day advance notice of any planned physical changes to the Site that may the Dischargers also shall provide a 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
10. Destruction and abandonment of any groundwater well(s) at the Site must be approved by and reported to the Regional Board at least 30 days in advance. Any groundwater

wells removed must be replaced within a reasonable time, at a location approved by the Regional Board. With written justification, the Regional Board may approve the destruction of groundwater wells without replacement. When a well is destroyed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.

11. In the event compliance cannot be achieved within the terms of this Order, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this Order are denied.
12. Reference herein to determinations and considerations to be made by the Regional Board regarding the terms of the Order may be made by the Executive Officer or his/her designee. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Regional Board.
13. The Regional Board, through its Executive Officer, may amend this Order as additional information becomes available. Upon request by Dischargers, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of Dischargers under this Order without amending the Order. Any such revision must be made in writing to be effective. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
14. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded.
15. Reimburse the Regional Board for reasonable costs associated with oversight of the investigation and cleanup of the waste at or emanating from the Site. Provide the Regional Board with the name or names and contact information for the person to be provided billing statements from the State Water Resources Control Board.
16. The Dischargers shall submit information and take actions addressing public participation requirements of CWC sections 13307.5 and 13307.6 when directed by the Executive Officer.
17. The Regional Board, under the authority given by Water Code section 13267(b)(1), requires you to include a perjury statement in all reports submitted under this Order. The perjury statement shall be signed by a senior authorized representative (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the

information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

18. The State Water Board adopted regulations requiring the electronic submittals of information over the internet using the State Water Board GeoTracker data management system. You are required to upload all reports and correspondence prepared and required by this Order on to the GeoTracker data management system. The text of the regulations can be found at the URL:

http://www.waterboards.ca.gov/ust/cleanup/electronic_reporting/docs/final_electronic_regs_dec04.pdf.

19. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with sections 13268, 13304, 13308, and/or 13350 of the California Water Code, and/or referral to the Attorney General of the State of California.
20. None of the obligations imposed by this Order on Dischargers are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

Date: Aug. 12, 2015

Attachment A

Figures

site

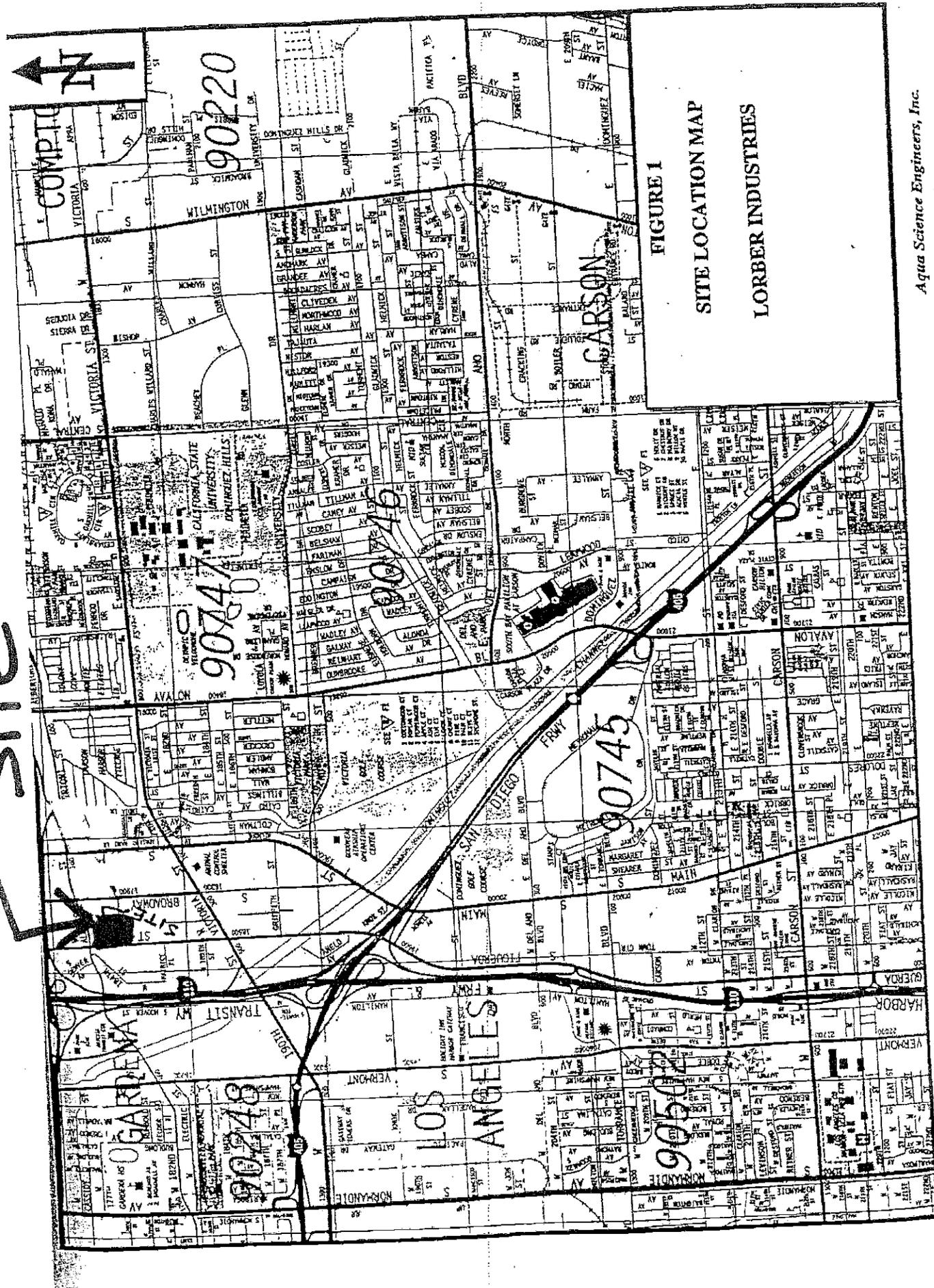


FIGURE 1

SITE LOCATION MAP

LORBER INDUSTRIES

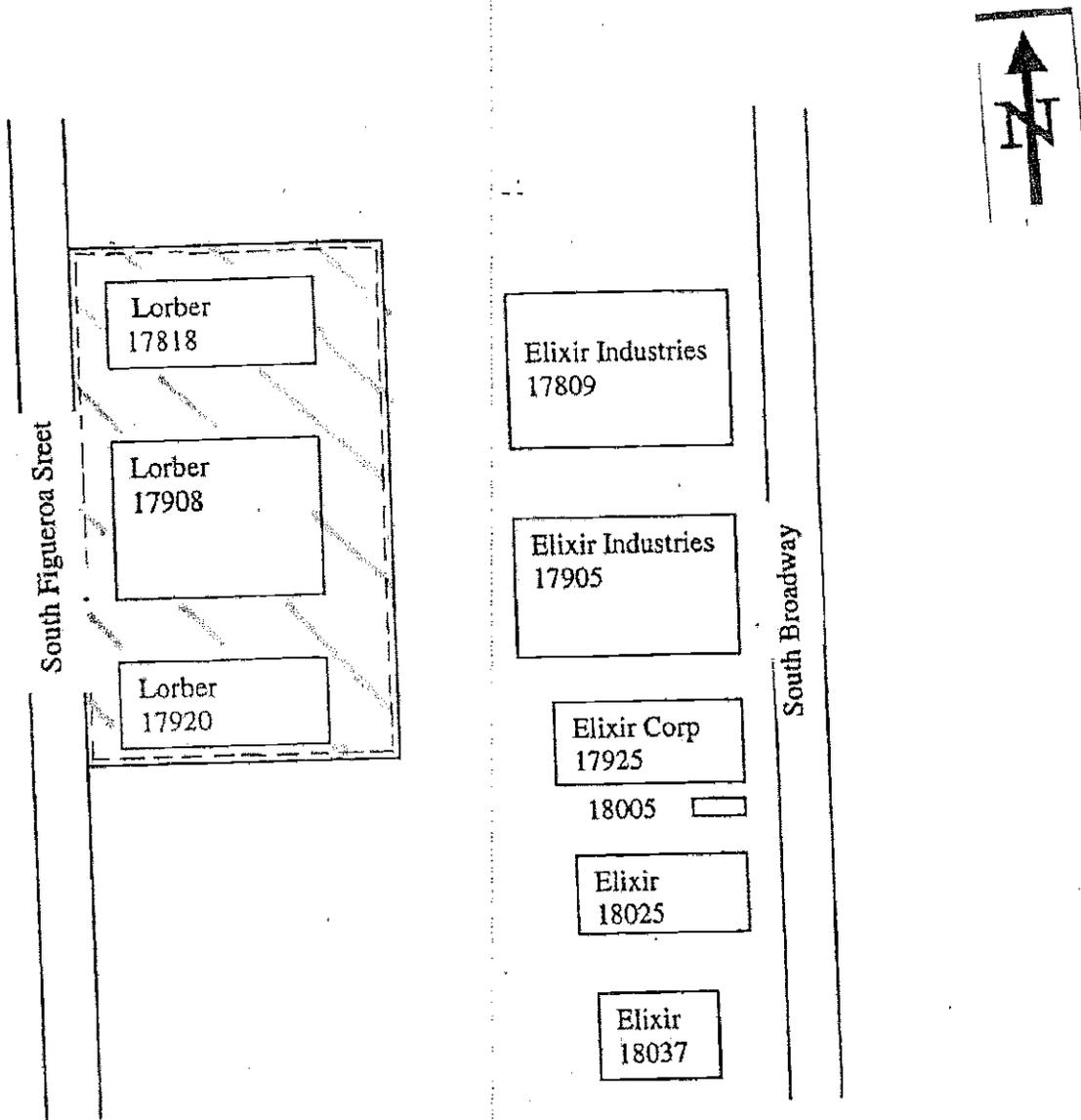


FIGURE 2
SUBJECT & ADJACENT SITES
LORBER INDUSTRIES

Lorber Industries
Site Cleanup Program No. 1056
Cleanup and Abatement Order No. R4-2015-0131

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August 12, 2015

Attachment B

Time Schedule

Time Schedule

DIRECTIVE		DUE DATE
1.	Site Assessment Work Plan:	
1a.	Prepare and submit to the Regional Board a work plan including a schedule for completing delineation of lateral and vertical extent of wastes in soil gas, soil matrix and groundwater onsite and offsite.	October 15, 2015
1b.	Implement the Site Assessment Work Plan according to approved schedule.	According to schedule approved by the Executive Officer
1c.	Submit a Site assessment report after the approval of the work plan and its implementation	According to schedule approved by the Executive Officer
1d.	Multiple Site Assessment Work Plans may be required to complete assessment of and fully delineate waste discharge	Within 60 days of receiving directives from the Regional Board.
2.	Conduct Remedial Action:	
2a.	Submit a Remedial Action Plan(s) (RAP) for cleanup of wastes in soil, soil vapor and groundwater that includes a time schedule for implementation.	Within 60 days of receiving directives from the Regional Board.
2b.	Implement RAP.	According to schedule approved by the Executive Officer
2c.	Upon completion of implementation of the RAP, submit a Remedial Action Completion Report.	According to schedule approved by the Executive Officer
2d.	Multiple RAPs may be required to complete assessment of and fully delineate waste discharge	According to schedule approved by the Executive Officer
3.	Conduct Human Health Risk Assessment:	
3a.	Prepare and submit a human health risk assessment considering all waste constituents in the soil matrix, soil gas and groundwater, all exposure pathways and receptors and applying existing regulatory human health screening levels and/or acceptable risk	According to schedule approved by the Executive Officer

	assessment models.	
4.	Conduct Groundwater Monitoring:	October 15, 2015
4a.	Prepare and submit to the Regional Board a Groundwater Monitoring Plan for the Site. Include a Sampling and analysis plan.	According to schedule approved by the Executive Officer.
4b.	Implement the Groundwater Monitoring and Sampling Plan according to approved schedule.	
6.	Public Participation:	According to the schedule approved or specified by the Executive Officer.

Lorber Industries
Site Cleanup Program No. 1056
Cleanup and Abatement Order No. R4-2015-0131

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August 12, 2015

ATTACHMENT C

Monitoring and Reporting Program

**MONITORING AND REPORTING PROGRAM FOR
CLEANUP AND ABATEMENT ORDER No. R4-2015-0131**

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267 and is part of Cleanup and Abatement Order (Order) No. R4-2015-0131. Failure to comply with this MRP can result in the imposition of civil liability, pursuant to the California Water Code section 13268. All sampling and analyses shall be by USEPA approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

Laboratory analytical reports to be included in technical reports shall contain a complete list of chemical constituents which are tested for and reported on by the testing laboratory. In addition, the reports shall include both the method detection limit and the practical quantification limit for the testing methods. All samples shall be analyzed within allowable holding times. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a State Water Resources Control Board, Division of Drinking Water accredited laboratory.

The Regional Board's Quality Assurance Project Plan, September 2008, can be used as a reference and guidance for project activities involving sample collection, handling, analysis and data reporting. The guidance is available on the Regional Board's web Site at:

http://www.waterboards.ca.gov/rwqcb4/water_issues/programs/remediation/Board_SGV-SFVCleanupProgram_Sept2008_QAPP.pdf

GROUNDWATER MONITORING

Dischargers shall collect groundwater samples from groundwater monitoring wells installed for the purpose of site investigation and monitoring. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled regularly. The groundwater surface elevation (in feet above mean sea level [MSL]) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow.

The groundwater shall be analyzed for all constituents pertinent to the Site such as provided below:

Constituent	EPA Method
Volatile Organic Compounds (full scan)	EPA 8260B
Total petroleum hydrocarbons as gasoline	EPA 8015 modified
Metals	EPA 6010
Hexavalent Chromium	EPA 7199
Ammonium Perchlorate	EPA 314.0
1,4-dioxane	EPA 8270C
N-Nitrosodimethylamine (NDMA)	EPA 1625
Temperature	Field*

pH	Field
Electrical Conductivity	Field
Oxidation-Reduction Potential (ORP)	Field
Turbidity	Field

* To be measured in the field.

REMEDATION SYSTEMS

Reports on remediation systems shall contain all pertinent information regarding the Site remediation systems:

1. Maps showing location of all remediation wells, if applicable;
2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;
3. The report shall include tables summarizing the operating and performance parameters for the remediation systems; and
4. System inspection sheets shall document field activities conducted during each Site visit and shall be included in the reports

MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to the Order, without amending the Order. Monitoring frequencies may be adjusted or parameters and locations removed or added by the Executive Officer, without amending the Order, if site conditions indicate that the changes are necessary. Any revisions to monitoring requirements or monitoring frequencies must be made in writing to be effective.

REPORTING REQUIREMENTS

1. The Dischargers shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Dischargers shall be deemed to be in noncompliance with the Monitoring and Reporting Program
2. Regular groundwater monitoring reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

Groundwater monitoring reports shall include a contour map showing groundwater elevations at the Site and the groundwater flow direction. The quarterly groundwater monitoring reports shall include tables summarizing the historical depth-to-water, groundwater elevations and historical analytical results for each monitoring well. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Water Board. Field monitoring well sampling sheets shall be completed for each monitoring well sampled and included in the report.

Remediation progress reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

3. Remediation progress reports shall include an estimate of the cumulative mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, any field notes pertaining to the operation and maintenance of the system and, if applicable, the reasons for and duration of all interruptions in the operation of any remediation system and actions planned or taken to correct and prevent interruptions.
4. In reporting the monitoring data, the Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in electronic form in a form acceptable to the Regional Water Board.

Regional Board Response to Comments Received for

Draft Cleanup and Abatement Order R4-2014-XXXX dated September 19, 2014

Comments Due Date: October 20, 2014 extended to December 31, 2014

I-1 to I-10 Comments were prepared by Michael A. Francis of DEMETRIOU, DEL GUERCIO, SPRINGER & FRANCIS, LLP, dated December 31, 2014
II-1 to II-4: Comments from Sahn Broadway Property, LLC prepared by Invitreat, Inc., dated November 6, 2014

No.	Author	Comments	Regional Board's Response
I-1	Michael A. Francis	<i>In this subject case, with respect to groundwater contamination caused by perchloroethylene ("PCE") and its daughter products, the data collected to date is inconclusive as to whether the former Lorber Industries ("Lorber") discharged or released PCE that impacted the groundwater at levels in excess of the 5 ug/L maximum contaminant level ("MCL").</i>	The data collected at the Lorber site indicated the presence of PCE and its daughter products at concentrations exceeding their respective MCLs. On Page 5 of comments Michael A. Francis it is stated that <u>"This requirement must be limited to PCE that originated on the Lorber Site and not include all VOCs present at the site because they are contaminants migrating from the Elixir Properties"</u> . You clearly admit that PCE originate from Lorber site.
I-2	Michael A. Francis	<i>As the RWQCB is aware, Lorber is not in a position to undertake the work directed in the Lorber Draft CAO. Lorber filed for and received an order completing its bankruptcy. The final decree closing the bankruptcy was issued by the U.S. Bankruptcy Court for the Central District of California on November 2, 2012. There are no remaining Lorber representatives or Lorber assets that can respond to or otherwise implement the Lorber Draft CAO.</i>	The Regional Board is aware that Lorber Industries of California filed for Chapter 11 bankruptcy in the court. The Regional Board does not have the final outcome of the bankruptcy proceedings.
I-3	Michael A. Francis	<i>We note, however, that TGA's legal name is not TGA Carson Properties I, LLC as the Lorber Draft CAO indicates, but is TGA Carson Properties, LLC. Accordingly, we request that the Lorber Draft CAO be revised to reflect the proper legal name of the current landowner.</i>	The Regional Board agrees and will make the correction is in the final CAO.
I-4	Michael A. Francis	<i>While the RWQCB may choose to name Lorber in the Lorber Draft CAO because it formerly conducted operations on the Lorber Site, the party performing the actions under a Lorber cleanup and</i>	California Water Code section 13304 authorizes the Regional Board to require any person or entity who caused or permitted, causes or permits, or threatens to

		<p><i>abatement order for alleged waste discharges originating on the Lorber Site will be the current owner, TGA. We have modified the Lorber Draft CAO to reflect that TGA is not a "discharger" by referring to the parties as "Responsible Parties" instead of dischargers. There is no evidence whatsoever that TGA ever discharged, caused or permitted a discharge of any wastes at the Lorber Site.</i></p>	<p>cause or permit, any waste to be deposited where it is or probably will be discharged into the waters of the state and creates or will create a condition of pollution or nuisance. The State Water Board has found the following classes of persons to be responsible as either causing or permitting a discharge of waste: (1) owners and operators at the time of discharge; (2) current property owners; (3) interim property owners; and (4) certain lessees of property. TGA Carson Properties LLC is considered a responsible party under Section 13304 because it is the current owner of the property at which waste discharges are occurring. The Regional Board does not oppose referring to TGA as a "responsible party" consistent with the comment, and will make the revision requested.</p>
I-5	Michael A. Francis	<p><i>TGA Carson Properties II, LLC, should not be named as a responsible party or a discharger in the Lorber Draft CAO. TGA Carson Properties II, LLC, is the owner of the real property commonly known as 17818 S. Figueroa Street, Carson, California. We recognize that 17818 S. Figueroa St. is included in the definition of "Site" in the Lorber Draft CAO. However, TGA Carson Properties II, LLC, never conducted any industrial operations on any of the properties that comprise the Lorber Site. Further, there is no evidence whatsoever to suggest that TGA Carson Properties II, LLC, was a discharger or contributed to any discharges within the meaning of Section 13304(a) of the Water Code. TGA Carson Properties II, LLC, should not be held to the Dischargers' liability as stated in Paragraph 19 of the Lorber Draft CAO. TGA Carson Properties II, LLC, also is not the owner of the real property on which the alleged release of PCE occurred. There is no data that indicates that there was any discharge of waste on the 17818 S. Figueroa property. It is not consistent with RWQCB policy or the Water Code to name the landowner of real property to which contaminants may have migrated. Accordingly, we respectfully request that TGA Carson Properties II, LLC, be removed as a responsible party from the Lorber Draft CAO. We note that documentation regarding the ownership of the subject parcels was</i></p>	<p>The dry cleaning machine was not located at 17818 S. Figueroa Street, Carson, California but the textile operation did occur at this location. Waste discharges are also present at 17818 South Figueroa. The Regional Board agrees that waste discharges did not originate at 17818 S. Figueroa Street, but that waste has migrated to that property. The Regional Board does not consider TGA Carson Properties II, LLC, as a responsible party for the waste that has migrated under its property so long as it does not exacerbate or add to the problem.</p>

		<p><i>previously provided to the RWQCB. However, should you desire such documentation, please let us know and we will provide it.</i></p>
I-6	<p>Michael A. Francis</p>	<p>The Regional Board uses the term "site" as a short hand, but not as a legal definition. The purpose of the CAO is to require investigation and cleanup of the waste wherever it is located. The Regional Board agrees, however, that it will clarify that 17818 S. Figueroa Street is not a source of waste discharges and that the owner of that property is not considered a responsible party so long as it does not exacerbate or add to the waste. The Regional Board appreciates that TGA Carson Properties II, LLC, is prepared to provide reasonable access.</p>
I-7	<p>Michael A. Francis</p>	<p>Although the Lorber Draft CAO recognizes that the Elixir Properties have contributed to the presence of contaminants beneath the Lorber Site, and the RWQCB is separately issuing Sahn and Elixir a CAO for the Elixir Properties, the Lorber Draft CAO does not name Sahn or Elixir as responsible parties for the Elixir Properties releases onto the Lorber Site.</p>
I-8	<p>Michael A. Francis</p>	<p>While the draft CAO to Sahn and Elixir directs them to fully assess and characterize the vertical and lateral extent of wastes onsite and offsite, it does not make it clear that Sahn and Elixir are responsible for investigating fully the extent of the Sahn and Elixir soil and groundwater contaminant impacts to the Lorber Site.</p>
I-9	<p>Michael A. Francis</p>	<p>The phrase "to fully assess and characterize the vertical and lateral extent of wastes onsite and offsite" includes assessment on the Lorber site of any waste originating from the Elixir site that has migrated to the Lorber site.</p>
I-10	<p>Michael A. Francis</p>	<p>The CAO requires TGA and Lorber to investigate and cleanup only those wastes, which originated at the former Lorber site.</p>
II-1	<p>Invirotest</p>	<p>The Regional Board has made corrections and revisions to the draft CAO as appropriate.</p>
		<p>The concentrations provided in Section 6.c are historical</p>

		<p>June 2001, the last monitoring events, are relatively low (toluene at 1,480 ug/l, xylene at 2,560 ug/l, and TCA at 2,500 ug/l), and much lower than the concentrations presented in Page 3, Section 6.c of the Lorber draft CAO, which are from earlier sampling events.</p> <p>The numerous other monitoring locations throughout Lorber's property did not detect any toluene, xylene, or TCA, suggesting that despite the southeast to northwest groundwater flow direction, no migration of contaminants from the Elixir plume reached any of the other monitoring locations on the Lorber site. The extensive data collected at the Lorber site since the 1991 clearly shows that the contamination beneath Lorber is exclusively from Lorber's past site operations, primarily the dry cleaning machine. Furthermore, samples taken at deeper water bearing zones did not show any of Elixir's historic chemicals. The chlorinated contaminants which were detected in all three water zones are from Lorber's operations and are the true risk to waters of the state.</p> <p>The information presented in the draft Lorber CAO regarding the dry cleaning operations at Lorber is inaccurate.</p>	<p>maximum concentrations.</p> <p>The analytical data show that wastes associated with Elixir operations have migrated offsite with groundwater. Waste constituents, including benzene, degradation products of 1,1,1-TCA and 1,4 dioxane, were detected in groundwater on the Lorber property. The waste discharges originating from the Elixir and Lorber sites are commingled.</p>
II-2	Inviro/treat		
II-3	Inviro/treat		
II-4	Inviro/treat	<p>The CAO needs to address the liability and responsibility of Lorber and TGA Carson Properties for the chlorinated plume beneath Sahm properties 17925, 17905 and 17809 S Broadway lots.</p>	<p>The information available to the Regional Board indicates that dry cleaning operations using PCE occurred at Lorber Industries at least until 1978. The use of PCE along with analytical results of soil, soil vapor and groundwater sampling establish that PCE was discharged at the Lorber site.</p> <p>Lorber and Elixir are each responsible for the discharges of wastes originating from their respective sites. Where the waste discharges have commingled, the Regional Board recommends that the parties coordinate their investigations and cleanup activities.</p>

EXHIBIT

2

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING DIVISION ... FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA INC.		DATE OF INSPECTION 09-25-89	
MAILING ADDRESS 17908 S. FIGUEROA ST., GARDENA, CALIFORNIA 90248		PERMIT APPL. NO. 203592	
EQUIPMENT LOCATION (ADDRESS) SAME		A.Q.M.D. OFFICE NO.	
REASON PERMIT IS REQUIRED:	NEW CON() CONSTRUCTION	CHANGE() OWNERSHIP	CHANGE() LESSSEE
DATE CONSTRUC TION AUTHORIZED:	BY	TIME SPENT MAKING INSPECTION:	EQUIPMENT(X) LOCATION ALTERATION FROM 11:00 AM TO 12:30 PM
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT: 24 HRS/DAY ; 7 DAYS/WEEK ; 45 WEEKS/YEAR			
WEATHER CLEAR, SUNNY	WIND 5 MPH	ESTIMATED BASIC COST EQUIP.\$	A.P.C. EQUIP.\$
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: MR. RALPH LOPEZ, MAINTENANCE MANAGER			
FOR DUST & FUME PROCESS PROBLEMS ONLY: WEIGHT(S)		ALLOWED LB/HR LOSSES:	ESTIM. LB/HR LOSSES

OFFICIAL EQUIPMENT DESCRIPTION. *CALCULATION OF PROCESS WEIGHT(S)
PROCESS DESCRIPTION AND FINDINGS;

APPLICATION NO. 203592

BOILER, DIXON, FIRE-TUBE TYPE, MODEL WW-6, SERIAL NO. D7454,
NATIONAL BOARD NO. 1646, 325 HP, WITH A INDUSTRIAL COMBUSTION
BURNER, MODEL NO. DLG-145S, 13,600,000 BTU/HR.

BACKGROUND

Lorber Industries owns two boilers which were installed without a permit in 1971 & 1975. They were rated at 21,000,000 btu/hr and 13,600,000 btu/hr and fired with natural gas only. The small boiler was exempt from permit under the old Rule 219(natural gas fired boilers under 20,000,000 btu/hr are exempt from permit) while the large boiler required a permit under the same rule. Since the company needed to use fuel oil during the natural gas curtailment, on 1-7-88, they filed two applications(A/N 164740 and 164742) to obtain permits to operate for the boilers (the company installed the oil firing without

RECOMMENDED DISPOSITION:	() APPROVE FOR PERMIT	() APPROVE FOR PERMIT SUBJECT TO CONDITIONS	() HOLD SEE EXPLANATION BELOW	() DENY PERMIT
REVIEWING ENGINEER:		SIGNATURE _____ ARG		
<input type="checkbox"/> I CONCUR WITH RECOMMENDATIONS <input type="checkbox"/> I DO NOT CONCUR WITH RECOMMEND. <input type="checkbox"/> SEE COMMENTS ON ATTACHED PAGE		PAGE 1 OF _____ PAGES		

ENGINEERING DIVISION...MEMORANDUM

FILE	ASL	DATE 7-18-88
REFERENCE LORBER INDUSTRIES OF CALIFORNIA INC.		PERMIT APPL. NO.
SUBJECT AIN 169791, 169792 & 169793 VA-POWER HEATERS & 2 DIXON BOILERS		
7-18-88 2:25 P.M.		
<p> CALLED RALPH LOPEZ HE SAID THAT THE 2 DIXON BOILERS OPERATE ON NATURAL GAS (LESS THAN 20 MM BTU/LH) & WOULD LIKE TO HAVE THE CAPABILITY TO OPERATE ON DIESEL FUEL OIL. THE LIQUID HEATER (AIN 169791) IS NO LONGER IN SERVICE & REMOVED. HE TOLD ME TO GO AHEAD & CANCEL THE APPLICATION. I TOLD HIM THAT I WILL SEND BOILER INSTRUCTION SHEETS (FORM FDD-C-10) FOR HIM TO FILL OUT / RETURN. </p>		
7-20-88 2:00 P.M.		
<p> CALLED MR LOPEZ THE FORM FDD-C-10 INCLUDING DWGS WERE SENT LAST FRIDAY. </p>		
10-10-88 10:50 A.M.		
<p> CALLED MR. LOPEZ - LEFT MESSAGE TO CALL ME BACK. </p>		
11-10-88		
<p> CALLED MR. LOPEZ AND WAS TOLD THAT: </p> <ol style="list-style-type: none"> 1. THE BOILERS WERE INSTALLED IN 1971 & 1975 2. LAST TIME BOILERS WERE FIXED ON OIL WAS IN FEBRUARY OR MARCH OF THIS YEAR. 3. THESE APPLICATION WERE FILED UPON THE INSTRUCTION OF SELMI SULTAN OF ENFORCEMENT DURING JANUARY OF THIS YEAR INSPECTION. 4. THE BOILERS HAVE LOW NO_x BURNERS & HAVE TEST RESULTS - TOLD LOPEZ TO SEND COPIES OF TESTS. 		



PERMIT TO OPERATE

P 68388

SECTOR CD

Operation under this permit must be conducted in compliance with all data and specifications included with the application under which this permit is issued. The equipment must be properly maintained and kept in good operating condition at all times. In accordance with Rule 10(c), this Permit to Operate must be posted or accessible.

LEGAL OWNER
OR OPERATOR

LORPRINT, INC.
Appl. No. A-83715

EQUIPMENT
LOCATED AT

17818 SOUTH FIGUEROA STREET
GARDENA, CALIFORNIA

EQUIPMENT
DESCRIPTION
AND
CONDITIONS:

FABRIC-PRINTING AND DRYING SYSTEM CONSISTING OF

1. PRINTER, STORK-BRABANT, DRUM TYPE, WITH A 3 H.P. FABRIC FEEDER, 20 H.P. PRINTING DRUM AND BELT DRIVE, FOUR 0.4 H.P. UNCURLERS, TWO 0.5 H.P. ROLLER FEEDERS, A 1/4 H.P. BELT GUIDE, TWELVE 3/4 H.P. DYE PUMPS, 0.74 H.P. GLUE PUMP, 5.36 H.P. BELT WASHING MACHINE AND AN 18 KW ELECTRIC HEATER.
2. DRIER, SOTRK-BRABANT, 11'-0" W. x 77'-0" L. x 9'-4" H., WITH THREE 1,908,000 BTU PER HOUR GAS BURNERS, THREE 40 H.P. CIRCULATING BLOWERS, 5 H.P. BELT CONVEYOR, TWO 5.63 H.P. EXHAUST FLOWERS, 1/2 H.P. BELT CONVEYOR GUIDE AND A 3 H.P. FABRIC FOLDER.

FILE COPY

(CONTINUED ON NEXT PAGE)

PAGE 1 OF 2 PAGES

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 20, Chapter 2, Article 3, of the Health and Safety Code of the State of California or the Rules and Regulations of the Air Pollution Control District. This permit cannot be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies

223k

56000a #23k

56000a #23k

NO BUSINESS VALIDATED

AIR POLLUTION CONTROL OFFICER

BY

Helen Thompson

Helen Thompson, Permit Section
December 22, 1976

DATE

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
 434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013. MADISON 9-4711

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.		DATE OF INSPECTION 5/10, 15, 25/76 <i>See Below</i>	
MAILING ADDRESS 17818 South Figueroa Street, Gardena, CA 90248		PERMIT APPL. NO. See Below	
EQUIPMENT LOCATION (ADDRESS) Same		A.P.C.D. ZONE NO. CD	
REASON PERMIT IS REQUIRED	NEW CONSTRUCTION (X)	CHANGE OF OWNERSHIP ()	CHANGE OF LESSEE ()
		CHANGE OF LOCATION ()	EQUIPMENT ALTERATION ()
DATE CONSTRUCTION AUTHORIZED	1-8-75	BY	MNM
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT	24 hrs/day, 6 days/week		
WEATHER	WIND	ESTIMATED COST	BASIC EQUIPMENT \$ See Below
			A.P.C. ESTIMATED EQUIPMENT \$ See Below
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER Mr. Bernard			
FOR DUST & FUME PROBLEMS ONLY	PROCESS WEIGHT (S)	LBS /HR	ALLOWED LOSSES
			LBS ESTIMATED /HR. LOSSES
OFFICIAL EQUIPMENT DESCRIPTION, *CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS			

APPLICATION NO. A-83714 (APC COST \$44,000)

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. MIST ELIMINATOR, SPEITZMAN INDUSTRIES, PACKED FIBERGLASS TYPE, WITH 805-SQ. FT. TOTAL NET FILTERING AREA AND AN AIR WASHER.
2. EXHAUST SYSTEM WITH A 40-H.P. BLOWER VENTING A DRYER, AN OVEN AND A STEAMER.

APPLICATION NO. A-83715 (BASIC COST: \$300,000)

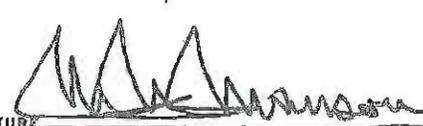
FABRIC-PRINTING AND DRYING SYSTEM CONSISTING OF:

1. PRINTER, STORK-BRABANT, DRUM TYPE, WITH A 3-H.P. FABRIC FEEDER, 20-H.P. PRINTING DRUM AND BELT DRIVE, FOUR 0.4-H.P. UNCURLERS, TWO 0.5-H.P. ROLLER FEEDERS, A 1/4-H.P. BELT GUIDE, TWELVE 3/4-H.P. DYE PUMPS, 0.74-H.P. GLUE PUMP, 5.36-H.P. BELT WASHING MACHINE AND AN 18 KW ELECTRIC HEATER.
2. DRYER, STORK-BRABANT, 11'-0" W. x 77'-0" L. x 9'-4" H., WITH THREE 1,908,000 BTU PER HOUR GAS BURNERS, THREE 40-H.P. CIRCULATING BLOWERS, 5-H.P. BELT CONVEYOR, TWO 5.63-H.P. EXHAUST BLOWERS, 1/2-H.P. BELT CONVEYOR GUIDE AND A 3-H.P. FABRIC FOLDER.
3. PAPER ROLL-UP STATION, 5-H.P., WITH A 3-H.P. ROLLER, 1/2-H.P. COOLING BLOWER, AND 0.24-H.P. AIR COMPRESSOR.

RECOMMENDED DISPOSITION () APPROVE FOR PERMIT () APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW. HOLD. SEE EXPLANATION BELOW. () DENY PERMIT.

Pending Enforcement evaluation.

REVIEWING ENGINEER
 I CONCUR WITH RECOMMENDATIONS
 I DO NOT CONCUR WITH RECOMMENDATIONS
 SEE COMMENTS ON ATTACHED PAGE

SIGNATURE

 M. N. Mansour, Sr. A. P. Engineer

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
LORPRINT, INC.	See P. 1	See P. 1

~~APPLICATION NO. A-83716 (BASIC COST: \$100,000)~~

~~STEAMER, STORK-BRABANT, 9'-5" W. x 32'-0" L. x 17'-4" H., WITH A 15-H.P. FEEDER, TWO 5-H.P. AND FOUR 3-H.P. CIRCULATING BLOWERS, TWO 5-H.P. COOLERS, 1-H.P. EXHAUST BLOWER, 0.74-H.P. OIL PUMP, AND A 3-H.P. FOLDER.~~

APPLICATION NO. A-83717 (BASIC COST: \$300,000)

FABRIC-DRYING AND HEAT-SETTING SYSTEM CONSISTING OF:

1. FEEDING STATION, WITH TWO 0.4-H.P. UNCURLERS, TWO 0.08-H.P. WIDTH ADJUSTERS, 0.3-H.P. STRAIGHTENING ROLLER, 13.8-H.P. EXPANDER ROLLERS, 8.9-H.P. FEEDER AND 0.34-H.P. COOLING BLOWER.
2. TENTER FRAME, 30-H.P., WITH A 8.9-H.P. WIDTH ADJUSTER.
3. OVEN, KRANTZ, 12'-10" W. x 120'-3" L. x 5'-9" H., WITH THREE 1,590,000 BTU PER HOUR AND FOUR 397,500 BTU PER HOUR GAS BURNERS, SEVEN 1/3-H.P. COMBUSTION AIR BLOWERS, SEVEN 20-H.P. CIRCULATING BLOWERS, FOUR 2-H.P. COOLING BLOWERS, TWO 1-H.P. THROTTLE FLAP ADJUSTERS, THREE 5-H.P. EXHAUST BLOWERS, TWO 0.4-H.P. SALVAGE CUTTERS AND 3.4-H.P. SALVAGE PNEUMATIC CONVEYOR.

HISTORY:

The applications were submitted by Lorprint, Inc. as Class I for authority to construct and permit to operate the system described above. The authority to construct was granted on January 8, 1975 and the construction was completed on April 15, 1975. The equipment was inspected on November 4, 1975 and November 15, 1975. During the November 4th inspection, violating opacities were noted from the APC equipment and emissions were attributed to poor maintenance of the unit. The equipments performance on Nov. 15, 1975 inspection appeared to be satisfactory and in compliance with the Rules.

The applicant proposed to install booster pumps within the APC equipment to maintain water pressure at the irrigation nozzles at the recommended maximum of 60 psi. He promised to contact the District as soon as the modifications and upgrading of the control equipment is completed.

On May 10, 1976, Engineering Inspector Fotiades contacted the writer and informed him that odor complaints had been filed against the applicant. The inspector indicated that he observed visible emissions of 10% opacity from the control equipment. As a result of this complaint it was decided to reinspect the equipment to take final action on the application.

SIGNATURE


M. N. Mansour, Sr. A. P. Engr.

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
LORPRINT, INC.	See P. 1	See P. 1

The equipment was inspected on May 10, May 13 and May 25 and observations during these inspections are provided in this report. observations

PROCESS DESCRIPTION:

This company is engaged in the printing of polyester fabrics and other synthetics such as polimed, acrylics and acetates. The printing process is a form of localized dyeing whereby a pattern of design is produced on a textile surface with the aid of azo dispersed dyes. The production process consists of printing, drying, steaming, washing, and finally heat setting.

Fabrics to be printed are first washed in a detergent solution to remove all the oils left from the knitting operation. The fabric is then dried and heat set in the tenter frame. Printed patterns are applied to the fabric by 12 consecutive rollers. The dye is dried upon application to reduce its moisture content and minimize spreading. The dye spreading is avoided since it causes the printed pattern to form ragged edges which significantly degrade the quality of the printed fabric.

The fabric then undergoes an aging process in the steamer for a period of 30-40 minutes. During this process, the application of heat causes the polyester fibers to open up and promote the absorption of the dye stuff into the fibers. The fabric is then washed in several batch washing systems to remove chemicals from the surface. Ideally, at the end of the washing process, only the dye stuff contained within the fibers will be left on the fabric. The rest of the oxidizing and accelerating chemicals would be drained to the sewer with the washing solution. The fabric is finally dried and heat set in a Kranze tenter ring. Finishing agents are applied to give the fabric the desired feel and texture.

Exhaust gases from the tenter frame, the steamer, and the dryer are ducted to an airwasher to reduce its temperature to 100°F or lower. The cooling operation was found to be essential to ensure the condensation of the collected contaminants. The exhaust is then introduced to a mist eliminator where liquid particulates are collected by the poli-maze bed and gravity-drained to the bottom of the unit. Cleaned air is exhausted at the top of the unit to the atmosphere.

The printing system is also used for the printing of paper. Printed patterns are transferred from the paper to the fabric by a special sublimation operation.

OBSERVATIONS DURING FIELD INSPECTION ON MAY 10, 1976:

During today's inspection, fabric of 8-8-1/2 ounces per square yard in weight was processed in the printing system oven. Temperature in the 3 modules of the oven was maintained at 300°F and the fabric was being fed at the rate of 20 yards per minute. Exhaust gas temperature at the inlet of the APC equipment was recorded to be 100°F and water pressure at the irrigation nozzles was maintained at 50 psi.

SIGNATURE

M. N. Mansour, Sr. A. P. Engr.

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.	APPL. NO. See P. 1	INSPECTION DATE See P. 1
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Visible emissions of violating opacity were noted continuously at the discharge of the air pollution control equipment and observed opacities were recorded on the attached opacity sheets. It was evident that the equipment is not capable of controlling the emissions generated. Mr. Bernard, Plant Maintenance Supervisor, requested to be given a second opportunity to demonstrate ^{the unit} performance after it's serviced and cleaned properly. It was agreed to schedule a second inspection as soon as possible.

OBSERVATIONS DURING FIELD INSPECTION ON MAY 15, 1976;

This inspection was conducted to establish the cause of discharging visible emission from the APC equipment. Mr. Bernard, explained that a water seal (please see enclosed diagram) at the bottom of each filter module broke and caused contaminated gases to by-pass the filter directly to the atmosphere. The unit was opened to inspect the water seals at the bottom of each filter module. It appeared, from the physical dimensions of the water-sealed containers, that the pressure of at least 20" W.C. must be maintained across the filter before the seal is broken. As a result, the possibility of breaking the water seal due to pressure build up within the unit was ruled out.

Mr. Bernard insisted on flushing the filter media before demonstrating the performance of the unit. The flushing of the media with water resulted in significant increase in pressure drop across the filter and pressure drop up to 13" W.C. was recorded on the unit's manometer. The units performance was then demonstrated while processing very light fabric in the printing system and dryer. The fabric, due to its light weight, was not suspected to cause severe emissions. Temperature at the inlet of the control equipment was measured to be 90°F. Pressure at the irrigation nozzles was maintained at 70 psi and pressure drop across the filter media progressively decreases from an initial value of 13" W.C. to stabilize at 10" W.C. The high pressure drop across the filter media was attributed to the saturation of the filter with water.

No visible emission of any kind was noted at the control equipment exhaust. It was difficult to determine if the observed satisfactory performance was due to an improvement in the units capability or due to the light emissions that were generated in the printing system dryer. The inspection was terminated with the intention to schedule a third field evaluation to demonstrate the equipment performance under a more adverse operating condition.

OBSERVATIONS DURING FIELD INSPECTION OF MAY 25, 1976:

During today's inspection, a relatively heavy weight fabric (6 ounces per square yard) was processed in the printing system. Temperature in the system dryer was maintained in all 3 modules at 200°F and the fabric was fed into the dryer at the rate of 20 yards per minute. Four printing drums were used in the printing operation. Temperature at the inlet to the

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M. N. Mansour, Sr. A. P. Engr.
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ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.	APPL. NO. See P. 1	INSPECTION DATE See P. 1
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control equipment was measured to be 170°F and temperature at the inlet to the filter was recorded to be 95°F. All three basic equipments vented by the control equipment were operating during this observation. Water pressure at the irrigation nozzles was maintained at 60 psi and pressure drop across the filter media is recorded on the manometer to be 6-1/2" W.C.

No visible emission of any kind was noted at the control equipment discharge throughout the observation period. A definite improvement in the units performance was noted in comparison with the performances during previous inspections. Mr. Bernard explained that he added *a* filter media at the discharge of the air washer to achieve intimate contact between the gases and the water and enhanced the condensation of the air contaminants. Sample of the filter media used at the outlet of the washer was obtained and enclosed with the file.

It is questionable, in the writer's opinion, that the filter added at the air washer discharge has improved the units collection efficiency. The units improved performance could be attributed, however, to the cleaning of the filter and maintenance of the water seal at the bottom of the filter. *Modelos*. It is possible that visible emission is mainly caused by specific types of fabrics when processed in the system. Such speculations, however, have not been substantiated by limited number of field observations conducted.

EVALUATIONS AND CONCLUSIONS:

The subject systems were observed in operation during several field inspections and found capable of operating in compliance with the Rules and Regulations. Achieving a satisfactory performance was found, however, to be greatly dependent upon the proper maintenance and proper operation of the APC equipment. Due to the past complaint history it is advisable to observe the APC system operation for a long period of time and establish its consistent compliance with Rule 401 and 402 of the Rules and Regulations.

. If satisfactory performance is attained during the surveillance period a permit to operate will be recommended.

RECOMMENDATION:

Hold application pending enforcement evaluation.

lm:6-21-76

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M. N. Mansour, Sr. A. P. Engr.

South Coast Air Quality Management District Engineering Division...Field Report

NAME OF APPLICANT "LORBER INDUSTRIES" AND "LORPRINT DIV. OF LORBER INDUSTRIES"				DATE OF INSPECTION 2-23-82 3-2-82	
MAILING ADDRESS 17908 S. Figueroa, Gardena, CA 90248				PERMIT APPL. NO. see below	
EQUIPMENT LOCATION (ADDRESS) 17908 S. Figueroa Gardena, CA and 17818 W. Figueroa, Carson, CA				A Q.M.D. OFFICE NO.	
REASON PERMIT IS REQUIRED:	NEW CONSTRUCTION <input checked="" type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	CHANGE OF LESSEE <input type="checkbox"/>	CHANGE OF LOCATION <input type="checkbox"/>	EQUIPMENT ALTERATION <input checked="" type="checkbox"/>
DATE CONSTRUCTION AUTHORIZED:	N/A		BY	TIME SPENT MAKING INSPECTION	
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT:			8 hrs/day		
WEATHER	WIND	ESTIMATED COST:	BASIC EQUIPMENT \$	A.P.C. EQUIPMENT \$	
partly cloudy	moderate				
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: Mr. Luis Verna, Plant Engineer					
FOR DUST & FUME PRO: LEMS ONLY:	PROCESS WEIGHT(S)	LB. ALLOWED /HR	ESTIMATED LOSSES	LB. ESTIMATED /HR	LOSSES

OFFICIAL EQUIPMENT DESCRIPTION, CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS:

A) LORBER INDUSTRIES LOCATED AT 17908 S. FIGUEROA STREET, GARDENA, CALIFORNIA.

APPLICATION NO. C-40000:

AIR POLLUTION CONTROL SYSTEM NO. 2 CONSISTING OF:

1. MIST ELIMINATOR, SPEIZMAN, PACKED FIBERGLASS FILTER TYPE, 6'-0" W. x 6'-0" L. x 18'-0" H., 14,000 CFM CAPACITY, WITH ONE 7 1/2-H.P. WATER PUMP.
2. EXHAUST SYSTEM WITH ONE 30-H.P. BLOWER VENTING A TEXTILE-DRYING SYSTEM PERMIT NO. P-91833.

APPLICATION NO. C-40003:

SHEARING UNIT NO. 1, GESSNER, MODEL SR 128, WITH ONE 5 H.P. DRIVE, AND ONE 3-H.P. POSITION GUIDE MOTOR.

B) LORPRINT DIV. OF LORBER INDUSTRIES LOCATED AT 17818 S. FIGUEROA STREET, CARSON, CALIFORNIA.

APPLICATION NO. C-40001:

PAPER PRINTING AND DRYING SYSTEM CONSISTING OF:

1. PRINTER, STORK-BRABANT, EIGHT COLORS, WITH ONE 20-H.P. MAIN DRIVE.

RECOMMENDED DISPOSITION:	<input checked="" type="checkbox"/> APPROVE FOR PERMIT	<input type="checkbox"/> APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW	<input type="checkbox"/> HOLD. SEE EX. PLANATION BELOW	<input type="checkbox"/> DENY PERMIT
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REVIEWING ENGINEER:

I CONCUR WITH RECOMMENDATIONS

I DO NOT CONCUR WITH RECOMMENDATIONS

SEE COMMENTS ON ATTACHED PAGE

SIGNATURE: *PCM*
Chailaiwan, Mueller, Engineer

PAGE 1 OF 5 PAGES

South Coast Air Quality Management District Engineering Division...Field Report

NAME OF APPLICANT LORBER INDUSTRIES AND LORPRINT	APPL. NO. see below	INSPECTION DATE 2-23-82 & 3-2-82
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2. DRYER, STORK-BRABANT, 700,000 BTU PER HOUR, DIRECT GAS-FIRED, WITH ONE 3-H.P. EXHAUST BLOWER, ONE 30-H.P. RECIRCULATING BLOWER, AND ONE 1/3-H.P. COMBUSTION BLOWER.

APPLICATION NO. C-40002:

FABRIC PRINTING AND DRYING SYSTEM CONSISTING OF:

1. PRINTING STATION, EIGHT COLORS, WITH ONE 20-H.P. MAIN DRIVE.
2. DRYER, ZIMMER, 1,200,000 BTU PER HOUR, DIRECT GAS-FIRED, WITH THREE 3-H.P. EXHAUST BLOWERS, SIX 8-H.P. CIRCULATING BLOWERS, AND SIX 1/3-H.P. COMBUSTION BLOWERS.

APPLICATION NO. C-40004:

ALTERATION TO AN EXISTING AIR POLLUTION CONTROL SYSTEM (PREVIOUS PERMIT NO. P-68387) BY VENTING A ZIMMER FABRIC PRINTING AND DRYING SYSTEM AND A STORK-BRABANT PAPER PRINTING AND DRYING SYSTEM IN ADDITION TO THREE OTHER UNITS SPECIFIED IN THE PREVIOUS PERMIT.

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Chailaiwan Mueller, Engineer I

PAGE 2 OF 5 PAGES

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South Coast Air Quality Management District Engineering Division...Field Report

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
LORBER INDUSTRIES AND LORPRINT	see below	2-23-82 & 3-2-82

BACKGROUND:

Both Lorprint and Lorber Industries are under the ownership of Mr. Arnold Lorber. The two companies are located on contiguous properties. Lorber Industries is mainly involved in the knitting and weaving portion of the fabric making process. Lorprint's main business is fabric printing. Lorber Industries was established around 1972. It received a permit to operate a Marshall and Williams Textile Drying System (P-51833) and an afterburner (P-51834) venting the system in 1973. In 1974, it received permit to operate a synthetic solvent dry cleaning unit (P-57686).

Lorprint was established around 1974 on a contiguous property. In 1976, it received permits to operate a Stork Steamer (P-68389), a Stork Fabric Printing and Drying System (P-68388), a Krantz Fabric Drying and Heat Setting System (P-68390), and a mist eliminator (P-68387) venting all three pieces of equipment.

In early 1980, Lorber Industries replaced the afterburner with a new mist eliminator (Appl. No. C-40000) and failed to apply for permit to operate until December 1981. In addition, there are two shearing units and two baghouses operating without permits. Applicant submitted an application for one shearing unit (Appl. No. C-40003) and intended to submit applications for the three other units.

Lorprint installed a Zimmer Fabric Printing and Drying System in 1979, the oven was originally steam operated but was converted to a direct gas-fired type in 1980. In addition, it installed a Stork Paper Printing and Drying System at this location in November 1981. Applicant vented these two systems to the mist eliminator, Permit No. P-68387, without applying for permit to construct and operate.

Mr. Doug Henderson, Enforcement Inspector, visited Lorber Industries and Lorprint on 11-4-81; he observed 55% opacity from the Zimmer machine. At that time the Zimmer machine was not connected to the mist eliminator, and he observed no emissions from the mist eliminator. Mr. Henderson issued a citation for violations of Rules 203 and 401. The applicant appeared at the Hearing Board on 2-24-82, the Board gave the applicant two months to come up with a plan and a contract for APCE.

OBSERVATIONS:

The new mist eliminator (C-40000), located at 17980 S. Figueroa, was observed to be operating properly. This unit is venting a Marshall and Williams Textile Drying System. No visible emissions were observed to be discharged to the atmosphere from this unit. The mist eliminator is designed for maximum capacity of 14,000 cfm. Exhaust volume from the oven vented to this

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South Coast Air Quality Management District Engineering Division...Field Report

NAME OF APPLICANT LORBER INDUSTRIES AND LORPRINT	APPL. NO. see below	INSPECTION DATE 2-23-82 & 3-2-82
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unit is 10,500 cfm; hence, the air velocity through the mist eliminator is calculated to be approximately $\frac{10,500}{805} = 13$ fpm which does not exceed the threshold limit of 25 fpm for this particular design.

The Gessner shearing unit, which is also located at 14908 S. Figueroa, was not observed in operation. This unit was connected to an Ospray baghouse and was used only one month a year. Applicant was to submit an application for permit to operate the baghouse.

Next to this shearer-baghouse, there was a smaller shearing unit and baghouse which had no permit to operate. Applicant would submit two applications for permits to operate these two units.

Stork Paper Printing and Drying System, located at 17818 S. Figueroa, was observed to be operating within the Rules of S.C.A.Q.M.D. No visible emissions were observed. Because the dyes used in this equipment (BASF Disperse dyne - 4% dye, 96% liquid which has 1% thickener and 99% water) contain no volatile organic compounds and the oven rating is less than 20,000,000 Btu/hr, the equipment is exempt under Rule 219(h)(3). This equipment is vented to the mist eliminator previous Permit No. P-68387 or current Application No. C-40004.

Zimmer Fabric Printing and Drying System, also vented to the mist eliminator (previous Permit No. P-68387 or current Application No. C-40004), was observed to discharge to the atmosphere white smoke at 55% opacity for longer than a 3-minute period in one hour. It is my opinion that the total volume of air vented to the mist eliminator exceeds the maximum capacity of the mist eliminator, causing portions of the exhaust air to escape through the oven instead of, vented through the mist eliminator.

Mist eliminator, previous Permit No. P-68387, was originally permitted for venting three printing and Drying Systems: Grantz Tenier Frame, Stork Steamer, and Stork Fabric Printing and Drying System. The scrubber was designed to handle a maximum air flow rate of 21,000 cfm. By venting the Stork Paper Printing and Drying System and the Zimmer Fabric Drying and Printing System (in addition to the other three units) total exhaust volume vented to the mist eliminator has increased to 31,000 cfm (7,500 cfm from Zimmer and 2,500 cfm from Stork). This caused the air velocity through the filter to increase to 39 fpm which exceeded the designed velocity of 25 fpm. White smoke at 50% opacity discharged to the atmosphere from this equipment was observed.

CONCLUSIONS AND RECOMMENDATION:

Mist Eliminator No. 2 was observed to be operating within compliance of the Rules and Regulations of S.C.A.Q.M.D. Permit to operate is recommended for this equipment.

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Chailaiwan Mueller, Engineer I

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South Coast Air Quality Management District Engineering Division...Field Report

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
LORBER INDUSTRIES AND LORPRINT	see below	2-23-82 & 3-2-82

Gessner Shearing Unit No. 1 received no complaints from its operation in the previous years. Therefore P/O is recommended on that basis.

Stork Paper Printing and Drying System is exempt under Rule ²¹⁹318(h)(3).

Zimmer Fabric Printing and Drying System and mist eliminator (C-40004) are denied on the basis of violations of Rule 401.

tg:3-24-82

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Chailaiwan Mueller, Engineer I

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EXHIBIT

3

Schriftenreihe

Biologische Abwasserreinigung

9

Treatment of wastewaters from textile processing

Behandlung von Abwässern der Textilveredelung

Kolloquium an der TU Berlin, 17. bis 18. November 1997

Redaktion: Anja Kormüller

**Sonderforschungsbereich 193:
Biologische Behandlung industrieller und gewerblicher Abwässer**

Berlin 1997

Wastewater Minimization: A View from a California Textile Mill

Dr. Ing. Martin Ferrus

Lumber Industries of California
17005 South Figueroa Street
Irvine, CA 92648
USA

Introduction

1.1 Los Angeles and the Textile Industry

Los Angeles has become the second largest center in the US for the garment industry - after New York. The textile and garment industry is now with over 85,000 employees - 11,000 of them work in the textile industry - the biggest employer in Los Angeles County- before the electronic and defense industry! Combined their sales exceed \$ 10 billion a year. It is the only area in the US where this industry continues to grow.

Over the years the industry has settled down in LA to provide the local garment industry. Its advantage over the textile industry on the East Coast and the Southern States (South and North Carolina) of the US - where still most of the US textile industry can be found today - is that it can deliver within very short time and produce at low cost due to cheap immigrant labor which comes mainly from Mexico and other Central American Countries. Compared to the textile centers elsewhere in the States the companies in LA are small and produce a big variety of different styles for a local market.

In the past low quality standard used to be lower than in the traditional textile centers and this has been gradually changing. The industry is becoming heavily capitalized and more automated.

1.2 Lorber Industries of California (LIC)

LIC is based in Gardena, family owned, has 500 employees and is one of the biggest dyehouses in LA. It is producing mainly cotton and its blends with polyester. LIC includes the following production steps: knitting, preparation, dyeing, printing, chemical and mechanical finishing. The dyehouse produces around 6,000 tons per year. The printing department has a yearly output of around 3,000 tons. Important customers include Lee Thomas, Guess and The Gap.

2 Wastewater Minimization at Lorber Industries

2.1 General

From the environmental point of view, water consumption and pollution is the biggest concern. LIC has an average daily water consumption of 700,000 gallons which is equivalent to more than 2,600 m³.

The only treatment at our facility is a 60,000 gal (equal to 227 m³) sedimentation tank for lint and particles which also helps to equalize the flow. The wastewater then goes to a nearby Publicly Owned Treatment Works (POTW) where it is mechanically and biologically cleaned and finally discharged to the ocean.

The legal requirements regarding the wastewater are generous compared to Germany because we are indirect dischargers (5 < pH < 12.5, temperature < 140 F = 60 °C, no quantitative limits for COD and BOD and color) and the POTW discharges into the ocean. Thus for us color in the effluent is not an issue from the legal perspective.

But there are economical incentives to reduce the wastewater load. There are several types of cost involving the discharge of wastewater, all are determined by the local not by the national authorities:

Type of cost	Amount	Unit
water inflow	2.00	\$/1000 gal
water outflow	2.00	\$/1000 gal
surcharge flow	0.38	\$/1000 gal
surcharge peak flow	51.05	\$/2.5log(peak/average)
surcharge COD	67.90	\$/1000 lb.
surcharge TSS	191.90	\$/1000 lb.

All together we pay \$ 5,504,000 gal = \$ 1,459/1 m³ = DM 2,701 m³. I guess this is somewhat lower than the average price in Germany but I know that some of the big mills like KBC pay less for their water than we do. It is little money though if one considers the fact that LA has a desert climate which means that there is as much evaporation as rainfall on a yearly average. The water is to around 80% impured, coming either from North California or from the Colorado River.

Besides the above mentioned charges so-called Connection Units (CU) also apply. Every company has to buy as many CUs as it takes treatment capacity of the POTW and the sewer system. The CUs are calculated based on a formula which includes wastewater flow, COD and TSS. We are talking about a considerable amount of money here. LIC is currently exceeding its CU share so that a payment of more than \$ 1,000,000 is necessary!

The water flow constitutes by far the biggest portion of the cost, followed by the cost for COD. TSS plays only a minor role. Therefore the focus of wastewater-treatment efforts will be for economic reasons on flow and COD reduction.

2.2 Specific Projects

The good thing about pollution prevention is that it is usually not only more beneficial for the environment than end of the pipe technologies like wastewater treatment plants or air filters but that it also pays economically. It pays because it increases the resource efficiency. In other words: pollution prevention reduces the water, energy and chemical consumption.

This is why even 'traditional' companies like LIC which are in business to make money and generally do not show a particular interest in environmental issues join the trend.

Although the idea of pollution prevention is easy to understand it is somewhat difficult to put into practice. It starts with the challenge to find out where the water and energy flows are really going. Either there are no meters or the meters are not working. For LIC this meant that first of all more than \$ 20,000 were spent on new water meters. To add to the complications it recently turned out that even some of the new and fancy meters are not counting correctly because they are sensitive to mechanical vibrations.

The next experience is that one might find out where an improvement could be achieved but from there it is still a long way to actually improve the situation and even if you have improved the situation once you can quickly use ground again. One example:

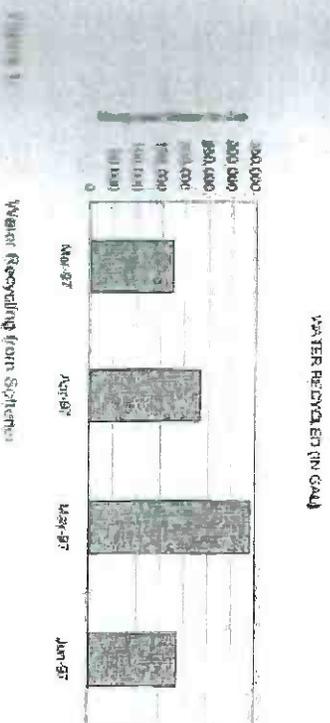
I was quite proud when the plant engineer and I found out how we can use one of the washing machines in the so-called total counterflow mode. This means that you only add water at the exit of the machine and the water then travels from wash box to wash box until the entrance of the machine. This is of course more water efficient than adding fresh water in every individual wash box. But a couple of days later one of the filters which cleans the water on its way from one wash box to the next got plugged which caused the fabric to run dry in the entrance wash boxes. As a consequence several thousands yards were damaged because nobody had realized that the filter had failed.

In the examples of water savings mentioned below there will not be any fantastic revolutions. This might be disappointing if you had expected something extraordinary. The good news is on the other hand that the resource consumption can be quite considerably reduced through a lot of small, insignificantly appearing steps which makes pollution prevention an interesting strategy for all textile dyehouses.

2.1 Fresh Water Treatment

Before the water goes to the processes, it is sent through an ion exchanger which removes the hardness of the water. This has mainly two benefits. The equipment needs to be cleaned a lot less because there is no more scaling and chemicals can be saved especially in the dyeing process which are normally used to prevent the hardness in the water from damaging the fabric.

The disadvantage of the ion exchange is that the filter has to be backflushed every time it is full with hardness which happens about 4 times a day and consumes roughly 5,000 gallons every time. We found out that the water consumption for this backflush can be reduced compared to the manufacturer settings and that we can reuse part of the backflush water. Therefore we divert it since March 97 to a storage tank and pump it to the printing department where it is used for the washing of the printing queues. This saves approximately 250,000 gallons per month (see chart).



2.4 Preparation

The preparation is done on continuous washing machines. One for woven fabrics one for knit goods.

The preparation of the woven goods is the main contributor (around 60%) to our COD load because of the sizing agents. For cotton mainly three chemicals are used: PVA, CMC and starch. There are technologies available to remove the sizing agent from the wastewater through membrane technology and reuse it. But this only works if one is using always the same sizing agent and knows exactly what type of sizing agent is used. LIC - like all the textile dyehouses which do not have their own weaving department - is buying its fabric from all over the world and sometimes does not even know what sizing agent is on the fabric. A very important pollution source is therefore not accessible by pollution prevention measures.

Several lab tests have shown that the wastewater is well degradable. The average COD is around 6,000 - 8,000 mg/l, the BOD 5 is around 50% of that value. If starch is used, the COD/BOD ratio is almost 1:1 and both aerobic and anaerobic bacterias have no problem to digest the load. Things become more difficult with PVA. Anaerobic bacterias were apparently not able to crack down the PVA, although it seems that aerobically they are degradable. Although the conditions for a biological system are favorable (a continuous machine which is operating usually 7 days a week, 24 hours per day, low COD/BOD ratio), the rough economic calculations indicated that the economic advantages would be little to non-existent. But I would be more than happy to go more into details if anybody is willing to put his or her brain into this, too, because I believe that something could be done here!

Something can also be done to reduce the water consumption. First of all more emphasis was put on process control, i.e. that the operators strictly use the required flows mentioned in the process formulas. This alone reduced the water consumption by roughly one third (see chart).

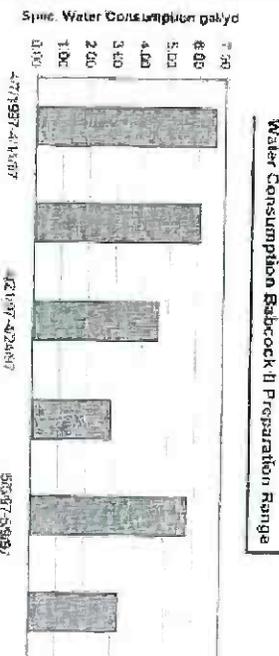


Figure 2:

Water Consumption Knit Dyeing Machine

The next step was that computer controlled valves were installed which allow to control the water flow exactly on a preset value even under changing water pressure conditions. Another advantage of this new system is that the valves automatically close as soon as the machine stops.

One of the machine uses also a very efficient heat exchanger which uses the energy of the wastewater to heat up the fresh water. This drastically reduces the energy requirements because before a gas-fired boiler had to be used for this purpose. The other side of the heat exchanger is that it keeps the maintenance department busy. Machines dealing with wastewater require a lot of attention because it is aggressive to the materials and the lint clogs pipes and valves easily.

3 Dyeing

There are two basic types of process technology for dyeing: continuous and batch (see chart). If larger lots are to be dyed nothing is as efficient as a modern continuous dyeing range. LIC has recently put into service one of the most advanced, almost entirely computer controlled continuous machines that are available on the market today. The water consumption of this machine is only about 10% of a common batch machine but there are two disadvantages. The machine is very expensive - over \$ 2,000,000 - and pays only if you have orders over several hundred kilo yards.

For the smaller lots there are for several years batch machines on the market which consume less than half the water of a regular batch machine. LIC has two of these machines and they are actually amazingly water and energy efficient (see chart). One drawback is that they are much more complicated than the conventional ones and technical problems can quite often be solved only with outside assistance.

Table 1: Comparison of Regular and Very Efficient Batch Dyeing Machine SAVINGS GC-Then COMPARISON

Type	Savings(%)		Savings	
	water time	water. (gal/lb)	time. (hrs/process)	
Disperse/Reactive I	53	31	11.88	5.85
Disperse/Reactive procion	70	87	8.97	16.03
Reactive	59	28	13.78	4.60
Reactive II	65	20	21.83	3.04
Average	62	41	14	7

On the older machines, where the operators can still influence the dyeing process through intervention in the program, it is very important to minimize these interventions as much as possible. We found for example that some operators used higher water volumes than others by manually overwriting the program. This caused directly a higher water consumption and also contributed to higher second quality production. This is not desirable from the environmental perspective because the second quality goods can be „fixed“ only through additional energy, water and chemicals.

“Typical“ environmental approaches like rinsing water minimization were not undertaken yet because quality related issues were priority but they stand on the list for the future.

2.6 Printing

Despite a fully automated dispensing system for the printing pastes it is still not possible to dispense exactly the amount that will be used to print the yardage of

fabric one wants. Therefore there are always **leftovers** which are usually discharged into the sewer.

To minimize this waste LIC has bought a system which allows to enter the amount of the paste leftovers into the computer system. As soon as a similar color is to be newly dispensed, the computer indicates that one or several buckets with the paste leftovers can be used and automatically adds the missing colors. This system works very well and allows us to recycle roughly 1,650 lb = 750 kg of paste each month (the chart).

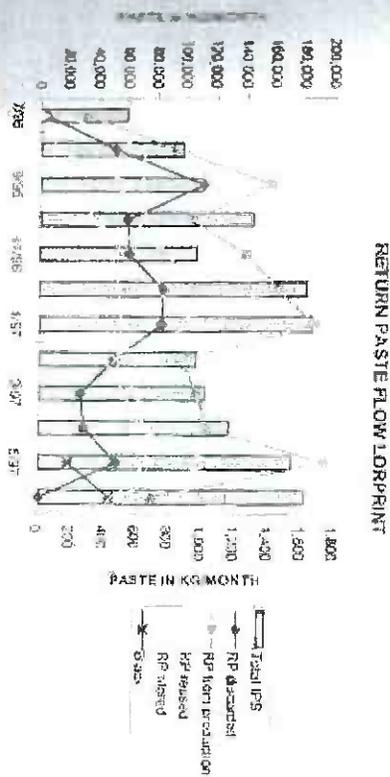


Figure 1 Return Paste Flow Printing Department

In the future we plan to purchase a technology which would allow us to recover most of the paste in the pumps and squeegees at the machine. At the moment only the paste can be recovered which is in the buckets standing next to the machine. All the paste in the pipes, pumps and squeegees is lost and washed to the drain when the printing lot is prepared. This new technology uses a ball in the squeegee to catch the paste back into the bucket as soon as production is finished. Thus the system losses can be reduced by over 50%.

Finally, we realized that one of the printing machines is using more water than it should. After we found that mechanically everything is OK the maintenance manager suggested that we might try to inject air to replace part of the water and increase the pressure. This reduced the water consumption by over 50% (see chart). It is in the planning to recycle part of this water at the machine itself and use it again which could cut the water consumption probably by another 50%.

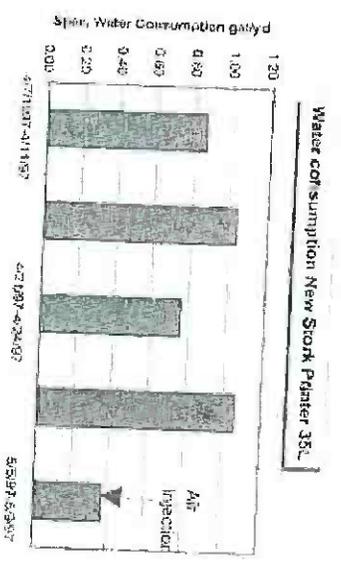


Figure 4: Water Reduction on Finishing Machine through Air Injection

2.7 Finishing

An example for efforts which did not succeed are the tests with a sprayer unit which applies chemicals during the final finishing of the fabric. The advantage of this sprayer is that it reduces the amount of chemicals required and also the amount of chemicals dumped but it turned out that it causes additional stress to the fabric. Thus the shrinkage quality criteria could not be met and the unit had to be dismantled.

Successful was instead a water recycling project on the so-called Sanitizing machines which improve the hand of the fabric by mechanical and thermal means. The machine itself is already environmentally friendly, because it achieves the same results as conventional machines without the use of chemicals. Water is required to cool parts of the machine. Normally this water is sent to the drain because it contains

left from the fabric. The installation of a filter made it possible to reuse around 35% of this water which is equivalent to around 600,000 gal per month. Further improvements will be possible through more frequent cleaning of the filter as the water is diverted to the drain in case the filter does not let through enough water (overflow protection).

3 Conclusions

3.1 Possibilities and Difficulties

My experience is that a lot of small things can be done which add up to considerable reduction possibilities. In our company an overall reduction in water consumption through measures which required little or no financial investments between 10-15% could be achieved through pollution prevention measures which is equivalent to 10,000 to 100,000 gal or 240 to 360 m³ per day. Higher percentages are possible but require heavier investments like new machinery or more advanced machine layouts.

but it only works if there is a good cooperation with other departments. In my case I especially rely on the experience and the help of the maintenance manager who has a lot of ideas „in the drawer“ but simply does not have the time to pursue them on his own.

Systems hardly work if the operators at the machines are against it. If they do not believe in a technique they will find a way to circumvent it. They are also the ones who can give valuable information about technical problems and possible improvements.

Health and environmental issues are related, e.g. in the dyeing where processes that would produce the color you want always on the first shot - something that can only be tried but never completely achieved - would reduce resource consumption by roughly 25%. I find myself often involved in discussion about quality improvement although they are not directly related to what is normally considered the job of an environmental engineer. But especially the quality topics might be very interesting from the pollution prevention point of view.

EXHIBIT

4



PERMIT TO OPERATE

P 57686

Operation under this permit must be conducted in compliance with all state and federal specifications included with the application under which this permit is issued. The equipment must be properly maintained and kept in good operating condition at all times. In accordance with Rule 10(c), this Permit to Operate must be posted on equipment.

LEGAL OWNER OR OPERATOR: LAMBER INDUSTRIES OF CALIFORNIA

Appl. No. A-73978

EQUIPMENT LOCATED AT: 17908 COTTEN PIEDMONT STREET GARDEN, CALIFORNIA

EQUIPMENT DESCRIPTION AND CONDITIONS: STEERING EQUIPMENT FOR CLEANING UNIT, BOILER & WEAVER TUB MACHINERY FABRICON AP-5000, SERIAL NO. 248/7106.

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 30, Chapter 2, Article 3, of the Health and Safety Code of the State of California or the Rules and Regulations of the Air Pollution Control District. This permit cannot be considered, or permitted, for resale, selling lease, endorsement, regulation or statutes of other governmental agencies.

VOID UNLESS VALIDATED

AIR POLLUTION CONTROL OFFICER
DATE August 1, 1971
J. P. Paddon

DO NOT REMOVE CARBONS OR SEPARATE
Three white copies must be submitted.
Yellow copy should be retained by applicant.

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
438 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013 MADISON 9-4
APPLICATION FOR AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE

RECEIVED
OCT 24 12 29 PM '72
L.A. COUNTY
AIR POLLUTION CONTROL DISTRICT

APPLICATION INSTRUCTIONS

- USE ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF BASIC EQUIPMENT AND ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF AIR POLLUTION CONTROL EQUIPMENT. CALL WA 9-4111, EXT. 24104 FOR ASSISTANCE.
- A \$40 FILING FEE MUST ACCOMPANY EACH APPLICATION. (A \$10 FILING FEE WILL BE ACCEPTED FOR A CHANGE OF OWNERSHIP APPLICATION WHERE NO ALTERATION, ADDITION OR CHANGE OF LOCATION HAS OCCURRED.) THE TOTAL FILING FEE, WHICH MAY EXCEED THE \$40 FILING FEE, MUST BE PAID BEFORE PERMIT TO OPERATE CAN BE GRANTED. MAKE CHECK OR MONEY ORDER PAYABLE TO: AIR POLLUTION CONTROL DISTRICT, COUNTY OF LOS ANGELES.
- EACH APPLICATION MUST BE FILLED OUT COMPLETELY AND FILED IN TRIPlicate. ACCOMPANYING PLANS MUST BE IN DUPLICATE.
- EACH APPLICATION MUST BE SIGNED BY A RESPONSIBLE MEMBER OF THE ORGANIZATION THAT IS TO OPERATE THE EQUIPMENT. INCOMPLETE APPLICATIONS NOT ACCEPTABLE.

9A. PERMIT TO BE ISSUED FOR:
LOGGER INDUSTRIES OF CALIF.
BUSINESS ENTITY TYPE OF ORGANIZATION THAT IS TO RECEIVE PERMIT

10. ARNOLD LOOPER
NAME (OR NAME) OF OWNER OR PRINCIPAL PARTNER OWNING BUSINESS AS (ADD) ABOVE ORGANIZATION

20. MAILING ADDRESS:
17908 S. FIGUEROA GARDENA CALIF.
NUMBER STREET CITY OR COUNTY STATE ZIP CODE

30. EQUIPMENT LOCATION ADDRESS:
17908 S. FIGUEROA GARDENA 90248
NUMBER STREET CITY OR COUNTY ZIP CODE

31. FIG. 3 PART 107
DESIGN IDENTIFYING SYMBOL

4. EQUIPMENT DESCRIPTION.
APPLICATION IS HEREBY MADE FOR AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:
ONE DRY CLEANING SYSTEM.
BOILER & WINDER W.G. MACHINERY FABRICATION AUGSBURG
MODEL 57100, SER. NO. 247100 WITH 27.98 H.P. DRIVE MOTOR

5. IF THIS EQUIPMENT HAS A PREVIOUS PERMIT NUMBER, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL WHOSE THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.
NO PREVIOUS PERMIT NUMBER

6. PERMIT APPLICATION REASON:
 NEW CONSTRUCTION
 ALTERATION
 CHANGE OF LOCATION
 CHANGE OF OWNERSHIP

7. TYPE OF ORGANIZATION:
 CORPORATION
 PARTNERSHIP
 INDIVIDUAL OWNER
 GOV'T. AGENCY

8. ESTIMATED COST OF EQUIPMENT OR ALTERATION:
 AIR POLLUTION CONTROL EQUIPMENT: _____
 BASIC EQUIPMENT: 40,000

9. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, WHAT IS THE ESTIMATED STARTING DATE? _____ INITIAL COMPLETION DATE? 10-15-1972

9D. GENERAL NATURE OF BUSINESS:
TEXTILE PROCESSING (KNITTING DYEING & FINISHING)

11. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:
Ambros Dragotjevic

13. OFFICIAL TITLE OF SIGNER:
PLANT MGR.

12. TYPE OF PRINTED NAME OF SIGNER:
AMBROS DRAGOTJEVIC

14. DATE:
10-18-1972

15. PHONE NUMBER:
321-8450

BY LIST NO. 2-6	BY LIST NO. 7-14	ALPHA LIST: 71-74	BY NO.: 75-80	CLASS: <input type="checkbox"/> IN <input checked="" type="checkbox"/> 111 <input type="checkbox"/> 3
ASSIGNMENT: 19-20	WORD UNITS: 21-24	APPLICATION NO.: 31-36	CDIP. CAT. NO.: 38-43	TYPE: 46
VALIDATION 35-39 (111)		A- 73078		
1009458 OCT 25 72 1 A 40.00				

40.00 \$ 1011 # 1127

APOL USE ONLY

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA		DATE OF INSPECTION 7/9/74	
MAILING ADDRESS 17908 South Figueroa STREET, Gardena, California 90248		PERMIT APPL. NO. A-73978	
EQUIPMENT LOCATION (ADDRESS) same		A.P.C. ZONE NO. CN	
REASON PERMIT IS REQUIRED:	NEW CONSTRUCTION <input checked="" type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	CHANGE OF LEASEE <input type="checkbox"/>
DATE CONSTRUCTED:	BY	TIME SPENT	EQUIPMENT ALTERATION <input type="checkbox"/>
VISIT AUTHORIZED:		MACHINE INSPECTION:	FROM 9:30 A.M. TO 10:10 A.M.
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT: 2 hrs/day, 5 days/week			
WEIGHTS	VINYL	ESTIMATED COST:	BASIC EQUIPMENT: 840,000 A.P.C. EQUIPMENT: 8
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: Ambros Dragojevic, plant manager			
FLA DUST & FUME PROBLEMS ONLY:	PROCESS WEIGHT (S)	LBS. ALLOWED /HR. LOSSES:	LBS. ESTIMATED /HR. LOSSES:

OFFICIAL EQUIPMENT DESCRIPTION, CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS:

APPLICATION NO. **A-73978:**

SYNTHETIC SOLVENT DRY CLEANING UNIT, BOHLER & WEBER KG MASCHINEN FABRIK AUGSBURG, MODEL SJ100, SERIAL NO. 248/7106.

BACKGROUND:

This application is required for equipment which is new construction. The equipment was found to be located as shown on the drawing in this application.

DESCRIPTION OF THE PERMIT UNIT:

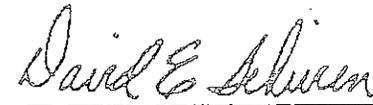
The dry-cleaning ^{UNIT} system is one permit unit since all of the equipment is interconnected by pipes or hoses for the flow of solvent.

OBSERVATIONS:

During the investigation, the following equipment was observed in actual operation: the complete dry-to-dry ^{UNIT} system.

No solvent odors were detected in the immediate vicinity of the dry-cleaning equipment. No odors were detected outside of the building housing the equipment. No visible emissions were observed from any of the equipment or the exhaust vents. Mr. Ambros Dragojevic stated that the equipment is operated an average of 2 hours per day, 5 days per week. Solvent make-up to the system averages 300 gallons per month. The average daily solvent loss to the atmosphere would, therefore, be 186.9 pounds.

RECOMMENDED DISPOSITION:	<input checked="" type="checkbox"/> APPROVE FOR PERMIT.	<input type="checkbox"/> APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW.	<input type="checkbox"/> HOLD. SEE EXPLANATION BELOW.	<input type="checkbox"/> DENY PERMIT.
--------------------------	---	---	---	---------------------------------------

REVIEWING ENGINEER: <input checked="" type="checkbox"/> I CONCUR WITH RECOMMENDATIONS <input type="checkbox"/> I DO NOT CONCUR WITH RECOMMENDATIONS <input type="checkbox"/> SEE COMMENTS ON ATTACHED PAGE(S)	SIGNATURE  David, E. Schwign, A. P. Engineer
PAGE 1 OF 2 PAGES	16-50D106 RS-9934

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA	APPL. NO. A-73978	DATE OF INSPECTION 7/9/74
--	----------------------	------------------------------

CONCLUSIONS AND RECOMMENDATIONS:

The operation of this equipment is not expected to violate any of the Rules and Regulations. Specifically, no visible emissions to violate Rule 50, or particulate emissions to violate Rule 52 are expected to occur. The low intensity and volume of odors emitted are not expected to cause a public nuisance in violation of Rule 5i at this location. The solvent used is perchloroethylene which is specifically exempt in Rule 66,1,4. A permit to operate the dry cleaning equipment is recommended. There is no condition necessary on the permit.

DN: 7/9/74

SIGNATURE

David E. Schwien

David E. Schwien, A. P. Engineer

PAGE 2 OF 2 PAGES

16-500107A RI-59-5

A 73978 717

FORM NUMBER 11-13-72

AIR POLLUTION CONTROL DISTRICT COUNTY OF LOS ANGELES
434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIFORNIA 90013/629-4711

NOTICE TO APPLY FOR APCD PERMIT

FIRM NAME (DBA): LOBBE INDUSTRIES OF CALIFORNIA		PHONE NO.:
OWNERSHIP: MR. ARMAND LOBBE	INSTALLING CONTRACTOR:	
MAILING ADDRESS: 17908 FIGUEROA ST.	MAILING ADDRESS:	ZIP: 90243
EQUIPMENT ADDRESS: — SAME —	EQUIPMENT:	

YOU ARE HEREBY NOTIFIED THAT PURSUANT TO SECTION 24279 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA A MISDEMEANOR HAS BEEN COMMITTED THROUGH THE (BUILDING, ~~ERECTING~~) ALTERATION, REPLACING, USING, OR OPERATION OF air dry vertical system Boiler & U-tube & G. MACHINERY WORK ANALOGY, Model 5100, Ser. No. = 45/7106 with 47.4% H.P. DRIVE MOTOR

WITHOUT AN AIR POLLUTION CONTROL DISTRICT PERMIT SO TO DO. IF AN APPLICATION FOR THE ABOVE EQUIPMENT HAS NOT BEEN ACCEPTED BY THE AIR POLLUTION CONTROL DISTRICT WITHIN 14 CALENDAR DAYS OF THE DATE OF SERVICE OF THIS NOTICE, A MISDEMEANOR COMPLAINT MAY BE FILED IN A MUNICIPAL COURT IN THE COUNTY OF LOS ANGELES.

SERVED TO: Mr. Armand Lobbé DATE SERVED: 10/16/72 BY: HAIR P. E. GEORGE
 SERVED BY: DINA SCHULMAN DIRECTOR OF ENFORCEMENT

THE FOLLOWING FORMS ARE LEFT HEREWITH.

APPLICATION FORMS 400A PERMIT INFORMATION, 400B PERMIT INSTRUCTIONS, 450 AND

REASON PERMIT REQUIRED: <input checked="" type="checkbox"/> NO PRIOR PERMIT <input type="checkbox"/> ALTERATION <input type="checkbox"/> OWNER CHANGE <input type="checkbox"/> UNKNOWN CHANGE	APPLICANT'S SIGNATURE: <u>UINA</u>
NAME OF PRIOR PERMITEE: <u>DINA</u>	POWER PLANT NO.:

SECTION 1. COMPLETE THIS SECTION EACH TIME A NOTICE IS SERVED.		DATE OF INSPECTION: <u>10-16-72</u>	
ESTIMATED % COMPLETE: <u>100%</u>	HAS EQUIPMENT IN OPERATION: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	APPLICANT'S SIGNATURE: <u>UINA</u>	DATE OF PERMIT: <u>10-16-72</u>
COMPLETION DATE: <u>8/72</u>	EQUIP. TYPE: <input checked="" type="checkbox"/> BASIC <input type="checkbox"/> CONTINUA	APPLICANT'S SIGNATURE: <u>UINA</u>	DATE OF PERMIT: <u>10-16-72</u>
IF FOR CONTROL EQUIP. PERMIT STATUS OF BASIC: <u>DINA</u>			
IF ALTERATION, BRIEFLY DESCRIBE CHANGE: <u>DINA</u>			

PROCESS DESCRIPTION & FINDINGS (NUISANCE EVALUATION, POSSIBLE EMISSIONS, ODORS, ETC.):

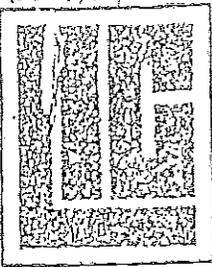
THIS COMPANY, FORMERLY SOFT KNITTING MILLS, IS SETTING UP A NEW PLANT CONSISTED OF 32 KNITTING MACHINES, A FABRIC DRYER, A DRYCLEANING UNIT, AND TWO LARGE 250 HP STEAM BOILERS. AT THIS TIME THE PLANT IS IN ABOUT 30% OPERATION. YET TO BE COMPLETED: LARGE KNITTING ROOM — NORTH 1/2 OF PLANT, GREEN, AFTERWARDS, 2ND BOILER UNIT IN QUESTION USES PERCHLOROETHYLENE — NO ODORS OF "PEC" NOTICED AROUND UNIT WHILE IN OPERATION. PLANT SHOULD BE IN FULL OPERATION IN 1 TO 2 MONTHS.

EQUIPMENT MAY VIOLATE SECTION 24243: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	RECOMMENDED FOR PERMIT: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ENGINEERING FINAL ACCOMPLISHED: <input checked="" type="checkbox"/> NO-1 <u>EDGE DEPT.</u>	YES - SEE SECTION 2

SECTION 2. TO BE COMPLETED ONLY IF ENGINEERING FINAL ACCOMPLISHED. IN ADDITION, COMPLETE APPROPRIATE SECTION A, B OR C ON REVERSE. USE SEPARATE FORM FOR EACH FINAL.

WIND: N E S W WEATHER: CLEAR OVERCAST RAIN OTHER, EXPLAIN:

10A14329



LOBBER INDUSTRIES CALIFORNIA INC.

January 30, 1987

Customer Service Section
South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

RE: Expiration of Permit #P57686

A 73978

Dear Sir,

Please be advised that we no longer have a dry cleaning machine or perchlorethylene on our premises, and do not wish to renew the applicable permit.

Thank you for your assistance.

Sincerely,

Robert R. Dalziel
Controller

RRD:jp

DO NOT REMOVE CARBONS OR SEPARATE
Three white copies must be submitted.
Yellow copy should be retained by applicant.

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013 MADISON 9-4

APPLICATION FOR AUTHORITY TO CONSTRUCT AND PERMIT

RECEIVED
 OCT 24 12 22 PM '72
 L.A. COUNTY
 AIR POLLUTION
 CONTROL DISTRICT

APPLICATION INSTRUCTIONS

- A. USE ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF BASIC EQUIPMENT AND ONE APPLICATION FORM 400-B FOR EACH PERMIT UNIT OF AIR POLLUTION CONTROL EQUIPMENT. CALL BR 4-4711, EXT. 2165 FOR ASSISTANCE.
- B. A \$40 FILING FEE MUST ACCOMPANY EACH APPLICATION. A \$10 FILING FEE WILL BE ACCEPTED FOR A CHANGE OF OWNERSHIP APPLICATION WHERE NO ALTERATION, ADDITION OR CHANGE OF LOCATION HAS OCCURRED. THE TOTAL FILING FEE, WHICH MAY EXCEED THE \$40 FILING FEE, MUST BE PAID BEFORE PERMIT TO OPERATE CAN BE GRANTED. MAKE CHECK OR MONEY ORDER PAYABLE TO: AIR POLLUTION CONTROL DISTRICT, COUNTY OF LOS ANGELES.
- C. EACH APPLICATION MUST BE FILLED OUT COMPLETELY AND FILED IN TRIPlicate. ACCOMPANYING PLANS MUST BE IN duplicate.
- D. EACH APPLICATION MUST BE SIGNED BY A RESPONSIBLE MEMBER OF THE ORGANIZATION THAT IS TO OPERATE THE EQUIPMENT. INCOMPLETE APPLICATIONS NOT ACCEPTABLE.

9. PERMIT TO BE ISSUED TO:
LOB REG. INDUSTRIES OF CALIF.
(BUSINESS ENTITY OR ORGANIZATION THAT IS TO RECEIVE PERMIT)

10. ARNOLD LOOPER
(NAME (OR NAMES) OF OWNER OR PRINCIPAL PARTNER OR BUSINESS AS (DOB) ABOVE ORGANIZATION)

11. MAILING ADDRESS:
17908 S. FIGUEROA GARDENA CALIF. 90248
(NUMBER STREET CITY OR COUNTY STATE ZIP CODE)

12. EQUIPMENT LOCATION ADDRESS:
17908 S. FIGUEROA GARDENA 90248 FIG. 3 PART 2-107
(NUMBER STREET CITY OR COUNTY ZIP CODE NEAREST INTERSECTING STREET)

13. EQUIPMENT DESCRIPTION:
APPLICATION IS BEING MADE FOR AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:
ONE DRY CLEANING SYSTEM.
BOILER & WEBER 170 MASHINEN FARRICH AUGSBURG
MODEL 37100, SER. NO. 24, 1106 WITH AT-98 H.P. DRIVE MOTOR

14. IF THIS EQUIPMENT HAD A PREVIOUS PERMIT, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL BODY THAT OPERATED THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.
N/A

15. PERMIT APPLICATION REASON: 16. NEW CONSTRUCTION <input checked="" type="checkbox"/> 1 ALTERNATION <input type="checkbox"/> 2 CHANGE OF LOCATION <input type="checkbox"/> 3 CHANGE OF OWNERSHIP <input type="checkbox"/> 4	17. TYPE OF ORGANIZATION: CORPORATION <input checked="" type="checkbox"/> 1 PARTNERSHIP <input type="checkbox"/> 2 INDIVIDUAL OWNER <input type="checkbox"/> 3 GOV'T. AGENCY <input type="checkbox"/> 4	18. ESTIMATED COST OF EQUIPMENT OR ALTERATION: AIR POLLUTION CONTROL EQUIPMENT: _____ BASIC EQUIPMENT: <u>40,000</u>
---	---	--

19. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, WHAT IS THE ESTIMATED STARTING DATE? _____ ESTIMATED COMPLETION DATE? 10-15-1972

20. GENERAL NATURE OF BUSINESS:
TEXTILE PROCESSING (KNITTING DYEING & FINISHING)

21. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:
Ambros Dragotovic

22. OFFICIAL TITLE OF SIGNER:
PLANT MGR.

23. TYPE OR PRINTED NAME OF SIGNER:
AMBROS DRAGOTEVIC

24. DATE: 10-18-1972

25. PHONE NUMBER:
321-8450

26. LIST NO. 2-6 VST 7-14 _____ ALPHAS LIST: 71-74 _____ 75-80 _____ CLASS: 1 1R 3

27. ASSIGNMENT: 19-20 _____ WORK UNITS: 21-24 _____ APPLICATION NO.: 31-36 _____ EQUIP. CAT. NO.: 38-43 _____ TYPE: 46 _____

28. VALIDATION 25-29 (111) _____

W09458 OCT 25 72 1 A 40.00

40.00 #1127

APPLICANT USE ONLY

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA					DATE OF INSPECTION 7/9/74	
BUILDING ADDRESS 17908 South Figueroa Avenue, Gardena, California 90248					PERMIT APPL. NO. A-73978	
EQUIPMENT LOCATION (ADDRESS) same					A.P.C.D. ZONE NO. CH	
REARER PERMIT IS REQUIRED:	NEW CONSTRUCTION (X)	CHANGE OF OWNERSHIP ()	CHANGE OF LESSEE ()	CHANGE OF LOCATION ()	EQUIPMENT ALTERATION ()	
DATE CONSTRUCTED:	BY	TIME SPENT	FROM	TO	MACHINE INSPECTION:	
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT:	2 hrs/day, 5 days/week					
WEIGHTS	VIBES	ESTIMATED COST:	BASIC EQUIPMENT:	A.P.C. EQUIPMENT:		
clear		from U.	840,000	8		
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: Ambros Dragojevic, plant manager						
PLA DUST & FUME PROBLEMS ONLY:	PROCESS?	LBS. /HR.	ALLOWED LOBBES:	LBS. /HR.	ESTIMATED LOBBES:	LBS. /HR.
	WEIGHT (S)					

OFFICIAL EQUIPMENT DESCRIPTION, CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS:

APPLICATION NO. A-73978:
 SYNTHETIC SOLVENT DRY CLEANING UNIT, BOHLER & WEBER KG MASCHINEN FABRIK AUGSBURG, MODEL SJ100, SERIAL NO. 248/7106.

BACKGROUND:

This application is required for equipment which is new construction.
 The equipment was found to be located as shown on the drawing in this application.

DESCRIPTION OF THE PERMIT UNIT:

The dry-cleaning ^{UNIT} system is one permit unit since all of the equipment is interconnected by pipes or hoses for the flow of solvent.

OBSERVATIONS:

During the investigation, the following equipment was observed in actual operation: the complete dry-to-dry system. ^{UNIT}
 No solvent odors were detected in the immediate vicinity of the dry-cleaning equipment. No odors were detected outside of the building housing the equipment. No visible emissions were observed from any of the equipment or the exhaust vents. Mr. Ambros Dragojevic stated that the equipment is operated an average of 2 hours per day, 5 days per week. Solvent make-up to the system averages 300 gallons per month. The average daily solvent loss to the atmosphere would, therefore, be 186.9 pounds.

RECOMMENDED DISPOSITION: (X) APPROVE FOR PERMIT. () APPROVE FOR HEAVY DUTY TO CONDITIONS LISTED BELOW. () HOLD. SEE EXPLANATION BELOW. () DENY PERMIT.

REVIEWING ENGINEER: *[Signature]*
 SIGNATURE: *David E. Schvick*
 David, E. Schvick, A. P. Engineer
 PAGE 1 OF 2 PAGES 16-30D166 R2-55-24

ENGINEERING DIVISION...FIELD REPORT

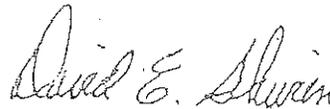
NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA	APPL. NO. A-73978	DATE OF INSPECTION 7/9/74
--	----------------------	------------------------------

CONCLUSIONS AND RECOMMENDATIONS:

The operation of this equipment is not expected to violate any of the Rules and Regulations. Specifically, no visible emissions to violate Rule 50, or particulate emissions to violate Rule 52 are expected to occur. The low intensity and volume of odors emitted are not expected to cause a public nuisance in violation of Rule 51 at this location. The solvent used is perchloroethylene which is specifically exempt in Rule 66, i, 4. A permit to operate the dry cleaning equipment is recommended. There is no condition necessary on the permit.

En: 7/9/74

SIGNATURE



David E. Schwien, A. P. Engineer

PAGE 2 OF 2 PAGES

16-50D107A R1-SS-S

A 73978 117

FORM NO. 101 11-13-72

AIR POLLUTION CONTROL DISTRICT COUNTY OF LOS ANGELES
434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIFORNIA 90013/629-4711

NOTICE TO APPLY FOR APCD PERMIT

FIRM NAME (DBA): <u>LOBBE INDUSTRIES OF CALIFORNIA</u>	PHONE NO.:
OWNERSHIP: <u>MR. ADAM LOBBE</u>	INSTALLING CONTRACTOR:
MAILING ADDRESS: <u>17908 W. FIGUEROA ST. 90243</u>	MAILING ADDRESS:
EQUIPMENT ADDRESS: <u>Same</u>	PHONE:

YOU ARE HEREBY NOTIFIED THAT PURSUANT TO SECTION 24279 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA A VIOLATION HAS BEEN COMMITTED THROUGH THE (BUILDING, ERECTING) ALTERATION, REPLACING, USING, OR OPERATION OF SAFETY DRY CLEANING SYSTEM; BOILER & WHEEL K.G. MA-MANUFACTURE
AVASBERG, MACH. STION, S.E. NO. = 43/7106 WITH 47.48 H.P.
DRIVE MOTOR

WITHOUT AN AIR POLLUTION CONTROL DISTRICT PERMIT SO TO DO. IF AN APPLICATION FOR THE ABOVE EQUIPMENT HAS NOT BEEN ACCEPTED BY THE AIR POLLUTION CONTROL DISTRICT WITHIN 14 CALENDAR DAYS OF THE DATE OF SERVICE OF THIS NOTICE, A MISDEMEANOR COMPLAINT MAY BE FILED IN A MUNICIPAL COURT IN THE COUNTY OF LOS ANGELES.

SERVED TO: MR. AUGUSTO DRAGONIS T.O.C. P.T. H.R. RALPH E. GEORGE
SERVED BY: DAVID SCHULLEN DATE SERVED: 10/16/72 DIRECTOR OF ENFORCEMENT

THE FOLLOWING FORMS ARE LEFT UNRETURNED.

APPLICATION FORMS 400A PERMIT INFORMATION, 400B PERMIT INSTRUCTIONS, 400C 400D

REASON PERMIT REQUIRED: <input checked="" type="checkbox"/> NO PRIOR PERMIT <input type="checkbox"/> ALTERATION <input type="checkbox"/> OWNER CHANGE <input type="checkbox"/> FIRM'S CHANGE	APCD - C.D. NO. <u>(11-1473)</u>
NAME OF PRIOR PERMITEE: <u>D.N.A.</u>	PERMIT NO. <u>---</u>

SECTION 1. COMPLETE THIS SECTION EACH TIME A NOTICE IS SERVED.		DATE OF INSPECTION: <u>10-16-72</u>	
ESTIMATED % COMPLETE: <u>100%</u>	HAS EQUIPMENT IN OPERATION: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	APCD - C.D. NO. <u>(11-1473)</u>	% UPAC: <u>---</u>
COMPLETION DATE: <u>8/1/72</u>	EQUIP. IS: <input checked="" type="checkbox"/> BASIC <input type="checkbox"/> CENTRAL	EST. COST: <u>---</u>	APCD - C.D. NO. <u>---</u>
IF FOR CONTROL EQUIP. PERMIT STATUS OF BASIC: <u>D.N.A.</u>			
IF ALTERATION, BRIEFLY DESCRIBE CHANGE: <u>D.N.A.</u>			

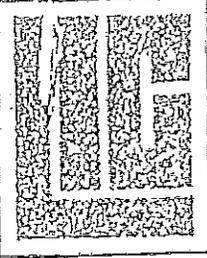
PROCESS DESCRIPTION & FINDINGS (INSURANCE EVALUATION, POSSIBLE UNDESIRABLE ODORS, ETC.)

THIS COMPANY, FORMERLY SOLT KNITTING MILLS, IS SETTING UP A NEW PLANT CONSISTED OF 32 KNITTING MACHINES, A FABRIC DYER, A DYEING UNIT, AND TWO LARGE 250 HP STEAM BOILERS. AT THIS TIME THE PLANT IS IN ABOUT 30% OPERATION. YET TO BE COMPLETED: LARGE KNITTING ROOM - NORTH 1/2 OF PLANT, BOILER, AFTERDYER, 2ND BOILER. UNIT IN QUESTION USES PERCHLOROETHYLENE - NO ODORS OF "PCE" NOTICED AROUND UNIT WHILE IN OPERATION. PLANT SHOULD BE IN FULL OPERATION IN 1 TO 2 MONTHS.

EQUIPMENT MAY VIOLATE SECTION 24243 <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	RECOMMENDED FOR PERMITS <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
ENGINEERING FINAL ACCOMPLISHED: <input checked="" type="checkbox"/> NO. 1 <u>EDGE DEPT.</u>	<input type="checkbox"/> YES - SEE SECTION 2
SECTION 2. TO BE COMPLETED ONLY IF ENGINEERING FINAL ACCOMPLISHED. IN ADDITION, COMPLETE APPROPRIATE SECTIONS A, B OR C ON REVERSE. USE SEPARATE FORM FOR EACH FINAL.	

WIND <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	WEATHER <input type="checkbox"/> CLEAR <input type="checkbox"/> OVERCAST <input type="checkbox"/> RAIN <input type="checkbox"/> OTHER, EXPLAIN:
--	---

10814229



LORBER INDUSTRIES CALIFORNIA INC.

January 30, 1987

Customer Service Section
South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

RE: Expiration of Permit #P57686

A 73978

Dear Sir,

Please be advised that we no longer have a dry cleaning machine or perchlorethylene on our premises, and do not wish to renew the applicable permit.

Thank you for your assistance.

Sincerely,

Robert R. Dalziel
Controller

RRD;jp

EXHIBIT

5

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING DIVISION ... FIELD REPORT

NAME OF APPLICANT Lorber Industries of California		DATE OF INSPECTION 3/25/91	
MAILING ADDRESS 17908 South Figueroa St. Gardena, CA 90248		PERMIT APPL. NO. 199619	
EQUIPMENT LOCATION (ADDRESS) Same as Above		A.Q.M.D. OFFICE NO.	
REASON PERMIT IS REQUIRED:	NEW CON() STRUCTION	CHANGE() OWNERSHIP	CHANGE() LESSEE
		CHANGE() LOCATION	EQUIPMENT(X) ALTERATION
DATE CONSTRUCTION AUTHORIZED:	9/25/89 BY ARG	TIME SPENT MAKING INSPECTION:	FROM 11:37 AM TO 12:43 PM
USUAL OPERATING SCHEDULE: 24 Hours/Day, 6 Days/Week, 52 Weeks/Year			
WEATHER Cloudy,	WIND Medium	ESTIMATED BASIC EQUIP.\$	A.P.C. EQUIP.\$ 62,710
NAMES & TILES OF PERSONS CONTACTED BY ENGINEER: Mr. Ralph Lopez, Maintenance Manager			
FOR DUST & FUME PROCESS PROBLEMS ONLY: WEIGHT(S)		ALLOWED LB/HR LOSSES:	ESTIM. LB/HR LOSSES:

Equipment Description:

BOILER, DIXON, FIRE-TUBE TYPE, MODEL WW-8, SERIAL NO. C 4189, NATIONAL BOARD NO. 1748, 500 HP WITH A VITOTHERM LOW NOX BURNER, MODEL NO. VG 5000, 21,800,000 BTU/HR, WITH A 15 HP BURNER AND INDUCED FLUE GAS RECIRCULATION SYSTEM.

Summary of the Evaluation:

During the evaluation processes, Mr. Lopez, maintenance manager of the company, accompanied me and provided information. The following summary is based on the visual inspections and the conversation with Mr. Lopez.

The equipments described above were located inside of a manufacturing building at the address above. The equipment plates were not attached to the boiler and burner because, according to Mr. Lopez, they had been removed during the installation processes. From a visual inspection, the length and height of the boiler were approximately 20 ft and 10 ft. The descriptions of boiler were confirmed by "Dixon Boiler Works" specification sheet, attachment No. 1. According to the sheet, the maximum rating of the boiler is 525 HP rather than 500 HP as specified by the Permit to Construct. The descriptions of the burner were confirmed by having a telephone conversation with Mr. Kevin at "Burner and Control" company which installed the burner. Mr. Kevin, (714) 572-8891, told me that the burner model was VG 5000 with heat input of 21,000,000 BTU/HR. He did not have the serial number of the burner with him but promised to check it out with the manufacturer in Europe.

There was no visual emission from the stack.

APPROVED 11 11 86/11/11

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING DIVISION ... FIELD REPORT**

NAME OF APPLICANT	APPLICATION NO.
Lorber Industries of California	199619

There was an underground fuel oil storage tank. The invoice showed that the fuel oil in the tank was purchased on 10/13/86 from Mock Resources, Inc.*, with the contract number 5889. The last time fuel oil in the tank was used for the boiler was approximately three years ago during the natural gas curtailment period. For the source test conducted on the boiler, Southern California Boiler bought two drums of Low-NOx No.2 Diesel fuel oil. Mr. Lopez did not have any of the fuel oil used for the test and did not know where Southern CA Boiler bought it from. Therefore, either the sample or the name of the company which provided the fuel oil could not be obtained.

The second fuel oil specification sheet sent to the District by Mr. Lopez on 3/19/91 was originally from Southern CA; it was faxed to Mr. Lopez on the same date. The original fax-copy of the specification sheet was obtained from Mr. Lopez and attached, attachment No. 2.

Since the boiler is the vital part of the manufacturing processes, it is necessary to have standby fuel for a natural gas curtailment period. Without the boiler, the whole manufacturing processes have to be halted.

The company wishes to avoid having another source test for the boiler, if it is possible. However, if it is required for getting a Permit to Operate, the company is willing to have another test.

RECOMMENDED DISPOSITION:	<input type="checkbox"/> APPROVE FOR PERMIT	<input type="checkbox"/> APPROVE FOR PERMIT SUBJECT TO CONDITIONS	<input checked="" type="checkbox"/> HOLD SEE EXPLANATION BELOW	<input type="checkbox"/> DENY PERMIT
* A further evaluation has to be made before reach to a conclusion.				
REVIEWING ENGINEER: { } I CONCUR WITH RECOMMENDATIONS { } I DO NOT CONCUR WITH RECOMMEND { } SEE COMMENTS ON ATTACHED PAGE	SIGNATURE <u>W. Lopez</u>			
PAGE 2 OF 2 PAGES				

EXHIBIT

6

SOUTH FIGUEROA



General Notes

- Elixir Groundwater Well Location
- Lorber Groundwater Monitoring Well Location
- Former Unpaved Dirt Surface
- Surface Drainage Flow Direction
- Lorber's Sewer Flow Direction
- Other Lorber Potential Sources of Release

Project Details

Name
Sahm Broadway Property

Address
18037 South Broadway
Gardena, CA

Number
8137

Figure Details

SITE PLAN WITH OTHER POTENTIAL SOURCES OF RELEASE FROM LORBER

Figure #
Figure 2

Revise Date
August 2015

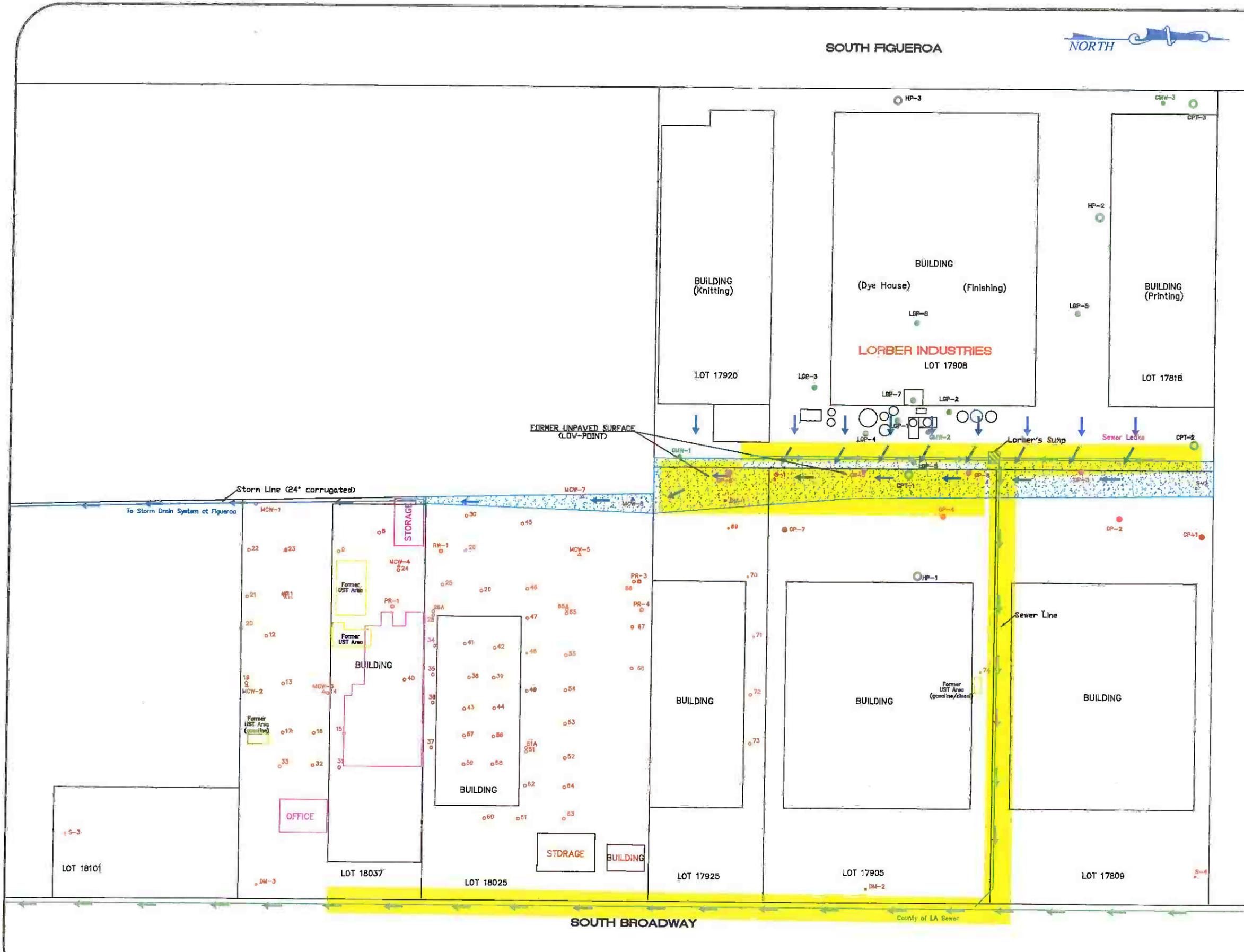
100'
Approximate Scale

Scale
1" = 100'

Company Information

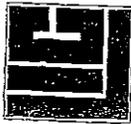
THE REYNOLDS GROUP
ENVIRONMENTAL SERVICES

INVIROTREAT INC.
INNOVATIVE TREATMENT



EXHIBIT

7



LORBER INDUSTRIES OF CALIFORNIA

Name of Process: Dry Cleaning (Permag)
Purpose of Process: Oil removal from knits
Date Process was Used: 1974-1978
Location of Process in Plant: Dyehouse
Location Code: F2A-2
(Coordinates Identified on Enclosed Plant Plant Map)

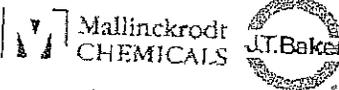
Chemicals Used
Name of Chemical: Chemical #1
MSDS Attached: Perchloroethylene*
Chlorinated Solvents Present: Yes
List of Chlorinated Solvents: Perchloroethylene*
Average Gallons per Month: 200
Spills? None
Waste/Liquid Generated: see notes
How was Waste Liquid Disposed: see notes
Average Quantity/Wast Liquid (Gallons/Month): see notes
Location of Stored or Disposed Waste Liquid: see notes
(by Plant Map Coordinate) see notes
Drum Storage: see notes
Waste Liquid Storage Tank: see notes
Waste water Clarifier Location: see notes
Sump Location: see notes
Floor Drain Location: see notes

Notes: Machine used in process has self-reclaiming system. Machine was removed in 1978. Permit cancelled 01/30/87.
*SCAQMD Permit #F57686 A-93978

Prepared By: _____
Name: _____
Title: _____
Date: _____

MSDS Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone 908-959-2151
CHEMTREC 1-800-424-0300

National Response in Canada
CANUTEC: 613-998-6556

Outside U.S. and Canada
Chemtrec: 703-627-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

ACETONE

MSDS Number: A0446 --- Effective Date: 04/10/01

1. Product Identification

Synonyms: Dimethylketone; 2-propanone; dimethylketal

CAS No.: 67-64-1

Molecular Weight: 58.08

Chemical Formula: (CH₃)₂CO

Product Codes:

J.T. Baker: 5356, 5580, 5805, 9001, 9002, 9003, 9004, 9005, 9006, 9007, 9008, 9009, 9010, 9015, 9036, 9125, 9254, 9271, A134, V655

Mallinckrodt: 0018, 2432, 2435, 2437, 2438, 2440, 2443, 2445, 2850, H451, H580, H981

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Acetone	67-64-1	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES

MATERIAL SAFETY DATA SHEET

THIS MSDS COMPLIES WITH OSHAS HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) AND OSHA Form 174

IDENTITY AND MANUFACTURER'S INFORMATION

NFPA Rating: Health-2; Flammability-1, Reactivity-1; Special-0
 Supplier's Name: Metro-Chem Ind., Inc.
 Supplier's Address: P.O. Box 626, Gardena, CA 90248
 Date Prepared: 01/11/01 Prepared By: JT
 Information Calls: (800) 289-3660
 HMIS Rating: Health-2; Flammability-1; Reactivity-1; Personal Protection-0
 DOT Hazard Classification: NON HAZARDOUS
 Identity (trade name as used on label): Maximum Strength Bio-Sol
 MSDS NUMBER: EXP07148A Revision: -

EMERGENCY RESPONSE NUMBER: (800) 255-3924 NOTICE: JUDGMENT BASED ON INDIRECT TEST DATA

SECTION 1 MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS-CHEMICAL NAMES AND COMMON NAMES	CAS #	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	Carcinogen Ref Source**
ISOPROPYL ALCOHOL	3.0	67-63-0	N/E	400	N/E
2-BUTOXYETHANOL	4.0	111-76-2	N/E	25	N/E
POTASSIUM HYDROXIDE		6834-92-0	N/E	N/E	N/E
NON-IONIC SURFACTANT	2.0				N/E

SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: > 212 F
 Vapor Pressure: N/E Max.
 Vapor Density: >1.00
 Solubility in Water: Complete
 Appearance and Odor: CLEAR YELLOW LIQUID WITH A MILD BUTYL ODOR

Specific Gravity: 1.005
 pH of Product: 7.0
 Evaporation Rate: <1.00
 Water Reactive: N/E

SECTION 3 FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY as per USA FLAME PROJECTION TEST: **NON FLAMMABLE**
 Auto Ignition Temperature: N/E
 Flash Point and method used (non-aerosols): N/E
 SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus.
 Unusual Fire and Explosion Hazards: TOXIC FUMES MAY BE EMITTED IF MATERIAL IS EXPOSED TO EXTREME TEMPERATURES.
 Flammability Limits in Air by % in Volume: N/E
 EXTINGUISHER MEDIA: Foam, dry chemical, carbon dioxide, water.

SECTION 4 REACTIVITY HAZARD DATA

STABILITY (X) STABLE () UNSTABLE HAZARDOUS POLYMERIZATION () WILL (X) WILL NOT OCCUR
 Incompatibility (Mat. to avoid): VERY STRONG OXIDIZING AGENTS
 Conditions to Avoid: **KEEP AWAY FROM HEAT OR OPEN FLAME.**
 Hazardous Decomposition Products: Smoke, Carbon Monoxide, Carbon Dioxide and other Toxic Fumes.

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: (X) INHALATION (X) INGESTION (X) SKIN ABSORPTION (X) EYE () NOT HAZARDOUS
 ACUTE EFFECTS: None Known.
 Inhalation: Prolonged exposure to vapors may cause signs & symptoms of Central Nervous System Depression such as Headache, Dizziness, Weakness and Loss of Coordination. Vapor/Mist may result in irritation, Headache, Nausea, Vomiting and Diarrhea.
 CHRONIC EFFECTS: None Known.
 Medical Conditions Generally Aggravated by Exposure: None Known.

EMERGENCY FIRST AID PROCEDURES

Eye Contact: Remove contact lenses immediately. Flush eyes with plenty of water for at least 15 minutes. Get immediately medical attention.
 Skin Contact: Wash skin with plenty of water. Remove contaminated clothing and wash before reuse. Get medical attention if needed.
 Inhalation: Remove to Fresh Air. Give Oxygen or CPR. Get immediately medical attention.
 Ingestion: Do not give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. Get immediately medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Steps to be taken in Case Material is Released or Spilled:
 Small Spill: Mop up.
 Large Spill: Dike area and absorb into neutral material or pump up.
 Disposal: As allowed by Federal State and Local requirements. Many jurisdictions allow small amounts into the sanitary sewer.
 Handling and Storage: Store in a cool, dry, well ventilated area. Keep container tightly closed when not in use.
 Other Precautions: Keep out of reach of children. For industrial and institutional use only.

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken if Material is Spilled or Released: **KEEP UNNECESSARY PEOPLE AWAY. SPILLS ARE SLIPPERY. DIKE & CONTAIN WITH INERT ABSORBENT MATERIAL. COLLECT FOR DISPOSAL.**
 Waste Disposal Methods: CONSULT LOCAL AUTHORITY FOR ALTERNATE METHODS, OBSERVE ALL LOCAL, STATE & FEDERAL REGULATIONS.
 Precautions To Be Taken In Handling & Storage: **STORE IN A COOL WELL VENTILATED AREA AWAY FROM SPARK, HEAT AND OPEN FLAME.**
 Other Precautions &/or Special Hazards: **KEEP OUT OF REACH OF CHILDREN.**

We believe the statements, technical information and recommendation contained herein are reliable, but they are given without warranty or guarantee of any kind.

* Chemical Listed as Carcinogen or Potential Carcinogen. (a) NTP (b) IARC Monograph (c) OSHA (d) Not Listed (e) Animal Data Only



MATERIAL SAFETY DATA SHEET

Date-Issued: 07/05/2000
MSDS Ref. No: 10024
Date-Revised: 01/16/2001
Revision No: New MSDS

Lacquer Thinner

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lacquer Thinner
PRODUCT DESCRIPTION: Lacquer Thinner
PRODUCT CODE: 24
PRODUCT FORMULATION NAME: Lacquer Thinner
CHEMICAL FAMILY: Organic Solvent
GENERIC NAME: Lacquer Thinner

MANUFACTURER

Auto Wax Company, Inc.
Auto Magic®
1275 Round Table Drive
Dallas, TX 75247
Product Stewardship: 1-214-631-4000
Transportation: 1-800-826-0828
Auto Wax Company, Inc.
Auto Magic®

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (U.S.): (800) 424-9300
CANUTEC: (613) 996-6666
Emergency Phone: 1-800-826-0828

COMMENTS: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR 1910.1200

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS#	ELINECS#
Toluene	50 - 70	108-88-3	
Methyl ethyl ketone	15 - 25	78-93-3	
Methyl isobutyl ketone	15 - 25	108-10-1	

COMMENTS: Product composition ranges shown are typical values for health, safety and environmental use and are not intended as specification.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Flammable liquid and vapor. CAUTION! May cause eye irritation.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: May cause slight irritation.

INGESTION: Harmful if swallowed

INHALATION: Repeated or prolonged inhalation may cause toxic effects.

ACUTE TOXICITY: overexposure to vapors may cause headaches, dizziness, confusion and nausea.

MEDICAL CONDITIONS AGGRAVATED: dermatitis may be aggravated by excessive exposure to skin.

ROUTES OF ENTRY: include skin contact, skin absorption, eye contact, inhalation and ingestion

TARGET ORGAN STATEMENT: not available

CANCER STATEMENT: not available

HEALTH HAZARDS: Moderately irritating to the eyes

PHYSICAL HAZARDS: Flammable liquid.

4. FIRST AID MEASURES

EYES: Flush eye with water for 15 minutes. Seek medical attention if irritation persists.



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300 or 202-483-7616

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: TOLUENE
This MSDS is valid for all grades and catalog numbers

General Information

Company's Name: PHARMCO PRODUCTS, INC.
Company's Street: 58 VALE RD.
Company's City: BROOKFIELD
Company's State: CT
Company's Zip Code: 06804
Company's Emerg Ph #: (203) 740-3471
Company's Info Ph #: (203) 740-3471

Date MSDS Revised: Nishant-1/21/02
Safety Data Review Date: 8/23/99
Preparer's Company: PHARMCO PRODUCTS, INC.
Preparer's St Or P. O. Box: 58 VALE RD.
Preparer's City: BROOKFIELD
Preparer's State: CT
Preparer's Zip Code: 06804

Ingredients/Identity Information

Proprietary: NO
Ingredient: TOLUENE (SARA III)
Ingredient Sequence Number: 01
Percent: >60

NIOSH (RTECS) Number: XS5250000
CAS Number: 108-88-3
OSHA PEL: 200 PPM/150 STEL
ACGIH TLV: 50 PPM; 9293

Physical/Chemical Characteristics

Appearance And Odor: COLORLESS, BENZENELIKE ODOR
Boiling Point: 232F
Vapor Pressure (MM Hg/70 F): 38
Vapor Density (Air=1): 4.5

Specific Gravity: 0.871
Evaporation Rate And Ref: 4.5, ETHER
Solubility In Water: NEGLIGIBLE
Percent Volatiles By Volume: 100

Fire and Explosion Hazard Data

Flash Point: 40F TCC.
Lower Explosive Limit: 1.2
Upper Explosive Limit: 7.0
Extinguishing Media: DRY CHEMICAL, REGULAR FOAM, WATER FOG, CARBON DIOXIDE
Special Fire Fighting Proc: SELF-CONTAINED BREATHING APPARATUS WITH FULL

M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : INTRAWET 8377 NEW
 IDENTIFICATION NUMBER: C00773L100
 PRODUCT USE/CLASS : Dyeing auxiliary

DATE PRINTED: 09/06/96

SUPPLIER:
 CROMPTON & KNOWLES COLORS INC.
 P.O. BOX 341

MANUFACTURER:
 CROMPTON & KNOWLES COLORS INC.
 READING, PA 19603

24 HR. EMERGENCY TELEPHONE:

CHEMTREC 1-800-424-9300

PREPARER: Health & Safety Dept, PHONE: 610-582-8765, PREPARE DATE: 06/30/94

SECTION 2 - COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % EQUAL TO
01	Isopropyl alcohol	67-63-0	7.1 %
02	Dyeing auxiliary	Proprietary	93 %

ITEM	EXPOSURE LIMITS					COMPANY TLV-TWA	SKIN
	TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	PEL-CEILING			
01	400 ppm	500 ppm	400 ppm	N.E.	N.E.	N.E.	NO
02	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Caution: Combustible liquid. Keep away from heat, sparks, and flame. May cause eye, skin, and respiratory irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: May be irritating to the eyes.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May be irritating to the skin.

EFFECTS OF OVEREXPOSURE - INHALATION: May be irritating to the respiratory tract.

EFFECTS OF OVEREXPOSURE - INGESTION: Not known.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Not known.

(Continued on Page 2)

EXHIBIT

8

Consumer Factsheet on: 1,1,1-TRICHLOROETHANE

List of Contaminants

As part of the Drinking Water and Health pages, this fact sheet is part of a larger publication:
National Primary Drinking Water Regulations

This is a factsheet about a chemical that may be found in some public or private drinking water supplies. It may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA).

What is 1,1,1-TCA and how is it used?

1,1,1-Trichloroethane (1,1,1-TCA) is an organic liquid with a chloroform-like odor. It is largely used as a solvent removing grease from machined metal products, in textile processing and dyeing and in aerosols.

The list of trade names given below may help you find out whether you are using this chemical at home or work.

Trade Names and Synonyms:

Chloroethene
Methylchloroform
Aerothene TT
Algylen
Alpha-T
Chlorten
Gemalgene
Genklene
Dowclene
Solvent 111
Trichloran
Inhibisol

Why is 1,1,1-TCA being Regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called **Maximum Contaminant Level Goals**.

The **MCLG** for 1,1,1-TCA has been set at 0.2 parts per million (ppm) because EPA believes this level of protection would not cause any of the potential health problems described below.

Based on this **MCLG**, EPA has set an enforceable standard called a **Maximum Contaminant Level (MCL)**. **MCLs** are set as close to the **MCLGs** as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The **MCL** has been set at 0.2 ppm because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

What are the Health Effects?

Short-term: EPA has found 1,1,1-TCA to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: damage to the liver, nervous system and circulatory system.

Long-term: 1,1,1-TCA has the potential to cause the following effects from a lifetime exposure at levels above the MCL: liver, nervous system and circulatory system damage.

How much 1,1,1-TCA is produced and released to the environment?

Demand for 1,1,1-trichloroethane was 705 million lbs. in 1989. 1,1,1-TCA is likely to enter the environment by evaporation or in wastewater from its production or use in metal cleaning. It can also enter the environment in leachates and volatile emissions from landfills.

From 1987 to 1993, according to EPA's Toxic Chemical Release Inventory, releases to water and land totalled over 1 million lbs. These releases were primarily from metal fabrication industries. The largest releases occurred in California and Georgia. The largest direct releases to water occurred in Utah and Indiana.

What happens to 1,1,1-TCA when it is released to the environment?

1,1,1-TCA will evaporate rapidly from water and soil. It does not bind to soils nor is it broken down by microbial action, so it may leach to ground water. It has little tendency to accumulate in aquatic life.

How will 1,1,1-TCA be Detected in and Removed from My Drinking Water?

The regulation for 1,1,1-TCA became effective in 1989. Between 1993 and 1995, EPA required your water supplier to collect water samples every 3 months for one year and analyze them to find out if 1,1,1-TCA is present above 0.5 ppb. If it is present above this level, the system must continue to monitor this contaminant.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of 1,1,1-TCA so that it is consistently below that level. The following treatment methods have been approved by EPA for removing 1,1,1-TCA: Granular activated charcoal in combination with Packed Tower Aeration.

How will I know if 1,1,1-TCA is in my drinking water?

If the levels of 1,1,1-TCA exceed the MCL, 0.2 ppm, the system must notify the public via newspapers, radio, TV and other means. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

Drinking Water Standards:

Mclg: 0.2 ppm

Mcl: 0.2 ppm

1,1,1-TCA Releases to Water and Land, 1987 to 1993 (in pounds):

	Water	Land
TOTALS (in pounds)	222,403	812,873
Top Six States*		
CA	109,070	
GA	73,258	
AR	67,000	
IN	46,096	
VA	51,822	
UT	0	
Major Industries		
Gray iron foundries	1,084	76,158
Aircraft	546	73,258
Manufacturing industries	1,018	72,572
Wood furniture	0	53,038
Fabricated structural metal	0	51,425
Plating, polishing	6,152	41,647
Turbines, generators	40,317	966

* State totals only include facilities with releases greater than 10,000 lbs.

Learn more about your drinking water!

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone books government listings are a good starting point.

Your local water supplier can give you a list of the chemicals they test for in your water, as well as how your water is treated.

Your state Department of Health/Environment is also a valuable source of information.

For help in locating these agencies or for information on drinking water in general, call: EPA's Safe Drinking Water Hotline: (800) 426-4791.

For additional information on the uses and releases of chemicals in your state, contact the: Community Right-to-Know Hotline: (800) 424-9346.



EXHIBIT

9



TECHNICAL FACT SHEET – 1,4-DIOXANE

At a Glance

- ❖ Flammable liquid and a fire hazard. Potentially explosive if exposed to light or air.
- ❖ Found at many federal facilities because of its widespread use as a stabilizer in certain chlorinated solvents, paint strippers, greases and waxes.
- ❖ Short-lived in the atmosphere, may leach readily from soil to groundwater, migrates rapidly in groundwater and is relatively resistant to biodegradation in the subsurface.
- ❖ Classified by the EPA as "likely to be carcinogenic to humans" by all routes of exposure.
- ❖ Short-term exposure may cause eye, nose and throat irritation; long-term exposure may cause kidney and liver damage.
- ❖ No federal maximum contaminant level (MCL) has been established for 1,4-dioxane in drinking water.
- ❖ Federal screening levels, state health-based drinking water guidance values and federal occupational exposure limits have been established.
- ❖ Modifications to existing sample preparation procedures may be required to achieve the increased sensitivity needed for detection of 1,4-dioxane.
- ❖ Common treatment technologies include advanced oxidation processes and bioremediation.

Introduction

This fact sheet, developed by the U.S. Environmental Protection Agency (EPA) Federal Facilities Restoration and Reuse Office (FFRRO), provides a summary of the contaminant 1,4-dioxane, including physical and chemical properties; environmental and health impacts; existing federal and state guidelines; detection and treatment methods; and additional sources of information. This fact sheet is intended for use by site managers who may address 1,4-dioxane at cleanup sites or in drinking water supplies and for those in a position to consider whether 1,4-dioxane should be added to the analytical suite for site investigations.

1,4-Dioxane is a likely human carcinogen and has been found in groundwater at sites throughout the United States. The physical and chemical properties and behavior of 1,4-dioxane create challenges for its characterization and treatment. It is highly mobile and has not been shown to readily biodegrade in the environment.

What is 1,4-dioxane?

- ❖ 1,4-Dioxane is a synthetic industrial chemical that is completely miscible in water (EPA 2006).
- ❖ Synonyms include dioxane, dioxan, p-dioxane, diethylene dioxide, diethylene oxide, diethylene ether and glycol ethylene ether (EPA 2006; Mohr 2001).
- ❖ 1,4-Dioxane is unstable at elevated temperatures and pressures and may form explosive mixtures with prolonged exposure to light or air (DHHS 2011; HSDB 2011).
- ❖ 1,4-Dioxane is a likely contaminant at many sites contaminated with certain chlorinated solvents (particularly 1,1,1-trichloroethane [TCA]) because of its widespread use as a stabilizer for chlorinated solvents (EPA 2013a; Mohr 2001)
- ❖ It is used as: a stabilizer for chlorinated solvents such as TCA; a solvent for impregnating cellulose acetate membrane filters; a wetting and dispersing agent in textile processes; and a laboratory cryoscopic solvent for molecular mass determinations (ATSDR 2012; DHHS 2011; EPA 2006).
- ❖ It is used in many products, including paint strippers, dyes, greases, varnishes and waxes. 1,4-Dioxane is also found as an impurity in antifreeze and aircraft deicing fluids and in some consumer products (deodorants, shampoos and cosmetics) (ATSDR 2012; EPA 2006; Mohr 2001).

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What is 1,4-dioxane? (continued)

- ❖ 1,4-Dioxane is used as a purifying agent in the manufacture of pharmaceuticals and is a by-product in the manufacture of polyethylene terephthalate (PET) plastic (Mohr 2001).
- ❖ Traces of 1,4-dioxane may be present in some food supplements, food containing residues from packaging adhesives or on food crops treated with pesticides that contain 1,4-dioxane as a solvent or inert ingredient (ATSDR 2012; DHHS 2011).

Exhibit 1: Physical and Chemical Properties of 1,4-Dioxane
(ATSDR 2012; Howard 1990; HSDB 2011)

Property	Value
Chemical Abstracts Service (CAS) Number	123-91-1
Physical Description (physical state at room temperature)	Clear, flammable liquid with a faint, pleasant odor
Molecular weight (g/mol)	88.11
Water solubility	Miscible
Melting point (°C)	11.8
Boiling point (°C) at 760 mm Hg	101.1 °C
Vapor pressure at 25°C (mm Hg)	38.1
Specific gravity	1.033
Octanol-water partition coefficient (log K_{ow})	-0.27
Organic carbon partition coefficient (log K_{oc})	1.23
Henry's law constant at 25 °C (atm-m ³ /mol)	4.80 X 10 ⁻⁶

Abbreviations: g/mol – grams per mole; °C – degrees Celsius; mm Hg – millimeters of mercury; atm-m³/mol – atmosphere-cubic meters per mole.

What are the environmental impacts of 1,4-dioxane?

- ❖ 1,4-Dioxane is released into the environment during its production, the processing of other chemicals, its use and its generation as an impurity during the manufacture of some consumer products. It is typically found at some solvent release sites and PET manufacturing facilities (ATSDR 2012; Mohr 2001).
- ❖ It is short-lived in the atmosphere, with an estimated 1- to 3-day half-life as a result of its reaction with photochemically produced hydroxyl radicals (ATSDR 2012; DHHS 2011). Breakdown products include aldehydes and ketones (Graedel 1986).
- ❖ It may migrate rapidly in groundwater, ahead of other contaminants and does not volatilize rapidly from surface water bodies (DHHS 2011; EPA 2006).
- ❖ Migration to groundwater is weakly retarded by sorption of 1,4-dioxane to soil particles; it is expected to move rapidly from soil to groundwater (EPA 2006; ATSDR 2012).
- ❖ It is relatively resistant to biodegradation in water and soil and does not bioconcentrate in the food chain (ATSDR 2012; Mohr 2001).
- ❖ As of 2007, 1,4-dioxane had been identified at more than 31 sites on the EPA National Priorities List (NPL); it may be present (but samples were not analyzed for it) at many other sites (HazDat 2007).

What are the routes of exposure and the health effects of 1,4-dioxane?

- ❖ Potential exposure could occur during production and use of 1,4-dioxane as a stabilizer or solvent (DHHS 2011).
- ❖ Exposure may occur through inhalation of vapors, ingestion of contaminated food and water or dermal contact (ATSDR 2012; DHHS 2011).
- ❖ Inhalation is the most common route of human exposure, and workers at industrial sites are at greatest risk of repeated inhalation exposure (ATSDR 2012; DHHS 2011).

What are the routes of exposure and the health effects of 1,4-dioxane? (continued)

- ❖ 1,4-Dioxane is readily adsorbed through the lungs and gastrointestinal tract. Some 1,4-dioxane may also pass through the skin, but studies indicate that much of it will evaporate before it is absorbed. Distribution is rapid and uniform in the lung, liver, kidney, spleen, colon and skeletal muscle tissue (ATSDR 2012).
- ❖ Short-term exposure to high levels of 1,4-dioxane may result in nausea, drowsiness, headache, and irritation of the eyes, nose and throat (ATSDR 2012; EPA 2013b; NIOSH 2010).
- ❖ Chronic exposure may result in dermatitis, eczema, drying and cracking of skin and liver and kidney damage (ATSDR 2012; HSDB 2011).
- ❖ 1,4-Dioxane is weakly genotoxic and reproductive effects in humans are unknown; however, a developmental study on rats indicated that 1,4-dioxane may be slightly toxic to the developing fetus (ATSDR 2012; Giavini and others 1985).
- ❖ Animal studies showed increased incidences of nasal cavity, liver and gall bladder tumors after exposure to 1,4-dioxane (DHHS 2011; EPA IRIS 2013).
- ❖ EPA has classified 1,4-dioxane as “likely to be carcinogenic to humans” by all routes of exposure (EPA IRIS 2013).
- ❖ The U.S. Department of Health and Human Services states that 1,4-dioxane is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in experimental animals (DHHS 2011).
- ❖ The American Conference of Governmental Industrial Hygienists (ACGIH) has classified 1,4-dioxane as a Group A3 carcinogen — confirmed animal carcinogen with unknown relevance to humans (ACGIH 2011).
- ❖ The National Institute for Occupational Safety and Health (NIOSH) considers 1,4-dioxane a potential occupational carcinogen (NIOSH 2010).

Are there any federal and state guidelines and health standards for 1,4-dioxane?

- ❖ Federal and State Standards and Guidelines:
 - EPA’s Integrated Risk Information System (IRIS) database includes a chronic oral reference dose (RfD) of 0.03 milligrams per kilogram per day (mg/kg/day) based on liver and kidney toxicity in animals and a chronic inhalation reference dose (RfC) of 0.03 milligrams per cubic meter (mg/m³) based on atrophy and respiratory metaplasia inside the nasal cavity of animals (EPA IRIS 2013).
 - The Agency for Toxic Substances and Disease Registry (ATSDR) has established minimal risk levels (MRLs) for inhalation exposure to 1,4-dioxane : 2 parts per million (ppm) for acute-duration (14 days or less) inhalation exposure; 0.2 ppm for intermediate-duration (15 to 364 days) inhalation exposure; and 0.03 ppm for chronic-duration (365 days or more) inhalation exposure (ATSDR 2012).
 - Oral exposure MRLs have been identified as 5 mg/kg/day for acute-duration oral exposure; 0.5 mg/kg/day for intermediate-duration oral exposure; and 0.1 mg/kg/day for chronic-duration oral exposure (ATSDR 2012).
 - The cancer risk assessment for 1,4-dioxane is based on an oral slope factor of 0.1 mg/kg/day and the drinking water unit risk is 2.9×10^{-6} micrograms per liter (µg/L) (EPA IRIS 2013).
 - EPA risk assessments indicate that the drinking water concentration representing a 1×10^{-6} cancer risk level for 1,4-dioxane is 0.35 µg/L (EPA IRIS 2013).
 - 1,4-Dioxane may be regulated as hazardous waste when waste is generated through use as a solvent stabilizer (EPA 1996b).
 - No federal maximum contaminant level (MCL) for drinking water has been established; however, an MCL is not necessary to determine a cleanup level (EPA 2012).
 - 1,4-Dioxane was included on the third drinking water contaminant candidate list, which is a list of unregulated contaminants that are known to, or anticipated to, occur in public water systems and may require regulation under the Safe Drinking Water Act (EPA 2009).

Are there any federal and state guidelines and health standards for 1,4-dioxane? (continued)

- ❖ Federal and State Standards and Guidelines (continued):
 - The EPA has established drinking water health advisories for 1,4-dioxane, which are drinking water-specific risk level concentrations for cancer (10^{-4} cancer risk) and concentrations of drinking water contaminants at which noncancer adverse health effects are not anticipated to occur over specific exposure durations. The EPA established a 1-day health advisory of 4.0 milligrams per liter (mg/L) and a 10-day health advisory of 0.4 mg/L for 1,4-dioxane in drinking water for a 10-kilogram child. EPA also established a lifetime health advisory of 0.2 mg/L for 1,4-dioxane in drinking water (EPA 2012).
 - The EPA's drinking water equivalent level for 1,4-dioxane is 1 mg/L (EPA 2012).
 - EPA has calculated a screening level of 0.67 $\mu\text{g/L}$ for 1,4-dioxane in tap water, based on a 1 in 10^{-6} lifetime excess cancer risk (EPA 2013c).^{1, 2}
 - EPA has calculated a residential soil screening level (SSL) of 4.9 milligrams per kilogram (mg/kg) and an industrial SSL of 17 mg/kg. The soil-to-groundwater risk-based SSL is 1.4×10^{-4} mg/kg (EPA 2013c).
 - EPA has also calculated a residential air screening level of 0.49 micrograms per cubic meter ($\mu\text{g/m}^3$) and an industrial air screening level of 2.5 $\mu\text{g/m}^3$ (EPA 2013c).
- ❖ Workplace Exposure Limits:
 - The Occupational Safety and Health Administration set a general industry permissible exposure limit of 360 mg/m^3 or 100 ppm based on a time-weighted average (TWA) over an 8-hour workday for airborne exposure to 1,4-dioxane (OSHA 2013).
 - The ACGIH set a threshold limit value of 72 mg/m^3 or 20 ppm based on a TWA over an 8-hour workday for airborne exposure to 1,4-dioxane (ACGIH 2011).
 - The NIOSH has set a ceiling recommended exposure limit of 3.6 mg/m^3 or 1 ppm based on a 30-minute airborne exposure to 1,4-dioxane (NIOSH 2010).
 - NIOSH also has established an immediately dangerous to life or health concentration of 500 ppm for 1,4-dioxane (NIOSH 2010).
- ❖ Other State and Federal Standards and Guidelines:
 - Various states have established drinking water and groundwater guidelines, including the following:
 - Colorado has established an interim groundwater quality cleanup standard of 0.35 $\mu\text{g/L}$ (CDPHE 2012);
 - California has established a notification level of 1 $\mu\text{g/L}$ for drinking water (CDPH 2011);
 - New Hampshire has established a reporting limit of 0.25 $\mu\text{g/L}$ for all public water supplies (NH DES 2011); and
 - Massachusetts has established a drinking water guideline level of 0.3 $\mu\text{g/L}$ (Mass DEP 2012).
 - The Food and Drug Administration set 10 mg/kg as the limit for 1,4-dioxane in glycerides and polyglycerides for use in products such as dietary supplements. FDA also surveys raw material and products contaminated with 1,4-dioxane (FDA 2006).
 - 1,4-Dioxane is listed as a hazardous air pollutant under the Clean Air Act (CAA) (CAA 1990).
 - A reportable quantity of 100 pounds has been established under the Comprehensive Environmental Response, Compensation, and Liability Act (EPA 2011).

¹ Screening Levels are developed using risk assessment guidance from the EPA Superfund program. These risk-based concentrations are derived from standardized equations combining exposure information assumptions with EPA toxicity data. These calculated screening levels are generic and not enforceable cleanup standards but provide a useful gauge of relative toxicity.

² Tap water screening levels differ from the IRIS drinking water concentrations because the tap water screening levels account for dermal, inhalation and ingestion exposure routes; age-adjust the intake rates for children and adults based on body weight; and time-adjust for exposure duration or days per year. The IRIS drinking water concentrations consider only the ingestion route, account only for adult-intake rates and do not time-adjust for exposure duration or days per year.

What detection and site characterization methods are available for 1,4-dioxane?

- ❖ As a result of the limitations in the analytical methods to detect 1,4-dioxane, it has been difficult to identify its occurrence in the environment. The miscibility of 1,4-dioxane in water causes poor purging efficiency and results in high detection limits (ATSDR 2012; EPA 2006).
- ❖ Conventional analytical methods can detect 1,4-dioxane only at concentrations 100 times greater than the concentrations of volatile organic compounds (EPA 2006; Mohr 2001).
- ❖ Modifications of existing analytical methods and their sample preparation procedures may be needed to achieve lower detection limits for 1,4-dioxane (EPA 2006; Mohr 2001).
- ❖ High-temperature sample preparation techniques improve the recovery of 1,4-dioxane. These techniques include purging at elevated temperature (EPA SW-846 Method 5030); equilibrium headspace analysis (EPA SW-846 Method 5021); vacuum distillation (EPA SW-846 Method 8261); and azeotropic distillation (EPA SW-846 Method 5031) (EPA 2006).
- ❖ The presence of 1,4-dioxane may be expected at sites with extensive TCA contamination; therefore, some experts recommend that groundwater samples be analyzed for 1,4-dioxane where TCA is a known contaminant (Mohr 2001).
- ❖ NIOSH Method 1602 uses gas chromatography – flame ionization detection (GC-FID) to determine the concentration of 1,4-dioxane in air. The detection limit is 0.01 milligram per sample (ATSDR 2012; NIOSH 2010).
- ❖ EPA SW-846 Method 8015D uses gas chromatography (GC) to determine the concentration of 1,4-dioxane in environmental samples. Samples may be introduced into the GC column by a variety of techniques including the injection of the concentrate from azeotropic distillation (EPA SW-846 Method 5031). The detection limits for 1,4-dioxane in aqueous matrices by azeotropic microdistillation are 12 µg/L (reagent water), 15 µg/L (groundwater) and 16 µg/L (leachate) (EPA 2003).
- ❖ EPA SW-846 Method 8260B detects 1,4-dioxane in a variety of solid waste matrices using GC and mass spectrometry (MS). The detection limit depends on the instrument and choice of sample preparation method (ATSDR 2012; EPA 1996a).
- ❖ A laboratory study is underway to develop a passive flux meter (PFM) approach to enhance the capture of 1,4-dioxane in the PFM sorbent to improve accuracy. The selected PFM approach will be field tested at 1,4-dioxane contaminated sites. The anticipated projection completion date is 2014 (DoD SERDP 2013b).
- ❖ EPA Method 1624 uses isotopic dilution gas chromatography – mass spectrometry (GC-MS) to detect 1,4-dioxane in water, soil and municipal sludges. The detection limit for this method is 10 µg/L (ATSDR 2012; EPA 2001b).
- ❖ EPA SW-846 Method 8270 uses liquid-liquid extraction and isotope dilution by capillary column GC-MS. This method is often modified for the detection of low levels of 1,4-dioxane in water (EPA 2007, 2013a).
- ❖ GC-MS detection methods using solid phase extraction followed by desorption with an organic solvent have been developed to remove 1,4-dioxane from the aqueous phase. Detection limits as low as 0.024 µg/L have been achieved by passing the aqueous sample through an activated carbon column, following by elution with acetone-dichloromethane (ATSDR 2012; Kadokami and others 1990).
- ❖ EPA Method 522 uses solid phase extraction and GC/MS with selected ion monitoring for the detection of 1,4-dioxane in drinking water with detection limits ranging from 0.02 to 0.026 µg/L (EPA 2008).

What technologies are being used to treat 1,4-dioxane?

- ❖ Pump-and-treat remediation can treat dissolved 1,4-dioxane in groundwater and control groundwater plume migration, but requires ex situ treatment tailored for the unique properties of 1,4-dioxane (such as, a low octanol-water partition coefficient that makes 1,4-dioxane hydrophilic) (EPA 2006; Kiker and others 2010).
- ❖ Commercially available advanced oxidation processes using hydrogen peroxide with ultraviolet light or ozone is used to treat 1,4-dioxane in wastewater (Asano and others 2012; EPA 2006).
- ❖ A study is under way to investigate facilitated-transport enabled in situ chemical oxidation to treat 1,4-dioxane-contaminated source zones and groundwater plumes effectively. The technical approach consists of the co-injection of strong oxidants (such as ozone) with chemical agents that facilitate the transport of the oxidant (DoD SERDP 2013d).

What technologies are being used to treat 1,4-dioxane? (continued)

- ❖ Ex situ bioremediation using a fixed-film, moving-bed biological treatment system is also used to treat 1,4-dioxane in groundwater (EPA 2006).
- ❖ Phytoremediation is being explored as a means to remove the compound from shallow groundwater. Pilot-scale studies have demonstrated the ability of hybrid poplars to take up and effectively degrade or deactivate 1,4-dioxane (EPA 2001a, 2013a; Ferro and others 2013).
- ❖ Microbial degradation in engineered bioreactors has been documented under enhanced conditions or where selected strains of bacteria capable of degrading 1,4-dioxane are cultured, but the impact of the presence of chlorinated solvent co-contaminants on biodegradation of 1,4-dioxane needs to be further investigated (EPA 2006, 2013a; Mahendra and others 2013).
- ❖ Results from a 2012 laboratory study found 1,4-dioxane-transforming activity to be relatively common among monooxygenase-expressing bacteria; however, both TCA and 1,1-dichloroethene inhibited 1,4-dioxane degradation by bacterial isolates (DoD SERDP 2012).
- ❖ Several Department of Defense Strategic Environmental Research and Development Program (DoD SERDP) projects are under way to investigate 1,4-dioxane biodegradation in the presence of chlorinated solvents or metals. Laboratory studies will (1) identify microbial cultures as well as biogeochemistry, which generate desirable enzymatic activity for 1,4-dioxane biodegradation; (2) assess biodegradation by methane oxidizing bacteria in coupled anaerobic-aerobic zones; (3) and evaluate branched hydrocarbons as stimulants for the in situ cometabolic biodegradation of 1,4-dioxane and its associated co-contaminants (DoD SERDP 2013c, e and f).
- ❖ Photocatalysis has been shown to remove 1,4-dioxane in aqueous solutions. Laboratory studies documented that the surface plasmon resonance of gold nanoparticles on titanium dioxide (Au – TiO₂) promotes the photocatalytic degradation of 1,4-dioxane (Min and others 2009; Vescovi and others 2010).
- ❖ Other in-well combined treatment technologies being assessed include air sparging; soil vapor extraction (SVE); and dynamic subsurface groundwater circulation (Odah and others 2005).
- ❖ SVE is known to remove some 1,4-dioxane, but substantial residual contamination is usually left behind because of 1,4-dioxane's high solubility, which leads to preferential partitioning into pore water rather than vapor. The DoD SERDP is conducting a project to evaluate and demonstrate the efficacy of enhanced or extreme SVE, which uses a combination of increased air flow, sweeping with drier air, increased temperature, decreased infiltration and more focused vapor extraction to enhance 1,4-dioxane remediation in soils (DoD SERDP 2013a).

Where can I find more information about 1,4-dioxane?

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Where can I find more information about 1,4-dioxane? (continued)

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- ❖ U.S. Food and Drug Administration (FDA). 2006. "Food Additives Permitted for Direct Addition to Food for Human Consumption; Glycerides and Polyglycides." Code of Federal Regulations. 21 CFR 172.736.
- ❖ Vescovi, T., Coleman, H., and R. Amal. 2010. "The Effect of pH on UV-Based Advanced Oxidation Technologies - 1,4-Dioxane Degradation." Journal of Hazardous Materials. Volume 182. Pages 75 to 79.

Additional information on 1,4-dioxane can be found at www.cluin.org/contaminantfocus/default.focus/sec/1,4-Dioxane/cat/Overview

Contact Information

If you have any questions or comments on this fact sheet, please contact: Mary Cooke, FFRRO, by phone at (703) 603-8712 or by email at cooke.maryt@epa.gov.

EXHIBIT

10

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INDULGENT YET RESPONSIBLE.

Textile printing and the environment

Given the large size of the printing industry, and the extraordinary volume of chemicals it consumes, it is not surprising that it also generates a significant amount of pollution. Gaseous emissions have been identified as the second greatest pollution problem (after effluent quality) for the textile industry – and these are largely generated in printing. Speculation concerning the amounts and types of air pollutants emitted from textile operations has been widespread but, generally, air emission data for textile manufacturing operations are not readily available. Air pollution is the most difficult type of pollution to sample, test, and quantify in an audit.[1] According to the U.S. EPA, the printing industry releases 99% of its total Toxic Release Inventory (TRI) poundage to the air, while the remaining one percent of releases are split between water and land disposal. This release profile differs significantly from other TRI industries which average approximately 60% to air, 30% to land, and 10% to water release respectively. Average VOC emissions per textile print line are 130 Mg (tons)/year for roller and 29 Mg/year for flat and rotary screen.[2]

In 1995, more than 41 million pounds of toxic compounds were transferred or released into the environment by the printing industry in the United States alone. The table below shows some of the polluting chemicals used by the textile printing industry. All ten are petroleum-derived.

Chemical	Releases and transfers in millions of pounds
Toluene	4.2
Methyl Ethyl Ketone	6.3
Glycol Ethers	0.4
Xylene	0.2

Methyl Isobutyl Ketone	0.6
Methanol	0.3
1,1,1-Trichloroethane	0.3
Ethylene Glycol	0.5
Dichloromethane	0.1

Source: *EPS: Profile of the Textile Industry, EPA/310-R-97-009, September 1997*

These VOC emissions are high because of the great quantity of solvents used in the industry. The volatility that helps minimize ink drying times also presents a health and safety risk. The solvents used in the printing pastes are typically respiratory, skin and eye irritants. But there are also more dire consequences – for example, a study done on Indian printing workers has found abnormal changes in their chromosomes.⁽³⁾ With such a high percentage of the paste being volatile, solvent vapors will be released during printing and will be present throughout the printing production area. Also, the fabric will continue to off-gas solvents after the material has been printed, especially if it has been rolled up. The Sector Notebook gives a short synopsis of these chemicals, and I've excerpted a few here:

- Toluene, although used primarily as a solvent, is also used throughout printing for cleanup purposes. Toluene contributes to the formation of ozone in the atmosphere; studies have shown that unborn animals were harmed when high levels of toluene were inhaled by their mothers, although the same effects were not seen when the mothers were fed large quantities of toluene. Note that these results may reflect similar difficulties in humans.
- Data on ethylene glycol mono-n-butyl ether is used to represent all glycol ethers because it is the most commonly used glycol ether in printing. It can leach into ground water, and reacts with photochemically produced hydroxyl radicals. For humans, moderate exposure may cause central nervous system depression, including headaches, drowsiness, weakness, slurred speech, stuttering, staggering, tremors, blurred vision, and personality changes. These symptoms are such that a patient, in the absence of an accurate occupational history, may be treated for schizophrenia or narcolepsy.
- Methyl ethyl ketone contributes to the formation of air pollutants in the lower atmosphere; breathing "moderate amounts" for short periods of time can cause adverse effects on the nervous system ranging from headaches, dizziness, nausea, and numbness in the fingers and toes to unconsciousness; repeated exposure to moderate to high amounts may cause liver and kidney effects.

Everybody is now talking about “water based” inks, as if that’s the answer to help reduce these emissions. So, let’s investigate these inks and see what “water based” means, and what the concerns may be.

There are three general types of textile inks (or pastes, as we referred to them in Printing – Part 2):

- traditional solvent-based inks
- water-based inks
- plastisol inks

The two inks used most often in textile printing are water-based (used mostly for yardgoods) and plastisol inks (used for printing finished goods, such as T shirts, sweatshirts, tote bags).

SOLVENT-BASED INKS: The solvent has two primary functions: 1) to carry the ink to the substrate, and 2) to evaporate quickly, leaving only the ink film on the substrate. While water is a solvent, the name solvent-based ink is used to describe a highly volatile solvent such as 2-butoxyethyl acetate, cyclohexanone and n-butyl acetate.

Solvent based inks are considered the least environmentally friendly due to the highly volatile solvents given off during printing and drying. The petroleum-based binder used in many solvent-based inks could be replaced with renewable resources such as vegetable oil or soy. The downsides are that the inks dry very slowly are less durable, and still contain solvents emitting VOCs during printing.

There are now inks on the market called Eco Solvent inks. To most people, “eco” means ecological, and to be fair these inks are not as nasty as full solvent inks. But these inks generally contain glycol esters or glycol ether esters – both derived from mineral oil – hardly a renewable resource or an ecologically sound process. Tony Martin, president of Lyson Inc. suggested we call these inks “mild” vs. the “aggressive” traditional solvent inks. Also since these inks are generally used to print onto PVC, the green claim sorta gets overlooked by the elephant in the substrate.

WATER-BASED INKS: These use water as the main solvent. But that does not mean that water is the ONLY solvent used. It is significant to note that many water base inks contain “co-solvents” which may even be petroleum based solvents.[4] (See Printing – Part 2 for components of typical water and solvent based inks.) The reason these co-solvents are used varies, but a main reason is to decrease the time and heat necessary to cure the ink on the fabric.

There are two types of water-based inks: Traditional (air dry) ink and Discharge ink.

- Traditional air dry ink soaks into the cloth and binds with the fibers providing good colorfastness and wash ability.
- Discharge ink removes the original dye/color from the garment and replaces it with a color/pigment. Discharge inks are now available in formaldehyde free formulations, such as the Oasis Series by Wilflex, making them safer for the user and the environment.

Water based inks are usually less expensive than solvent-based inks and are similar in quality, gloss, and adhesion.

Many printers observe that water-based inks have more vibrant colors and print more crisply than their solvent-based counterparts. The sharper definition possible with water-based inks allows printers to use finer dot patterns in screened process printing. Water-based inks are a good choice when a "soft hand" is desirable. (A soft hand is the condition where the ink film cannot easily be felt with the hand when passed across the surface of the fabric. This affect is often used as an argument for why water-based is preferable to plastisol because plastisol has more of a hand than water-based, and this is considered a consumer turn off.)

These inks are inexpensive and easy to manufacture. In fact, with some experience and the proper equipment, printers can even make them in small batches from basic natural components. They have a very limited shelf life and are difficult to re-use, so they generate more wasted ink than regular plastisols or more complex, manufactured water-based inks. While this type of water-based ink is considered a very green alternative, this extra waste is something to consider.

An advantage often cited for water-based inks is that they do not require organic solvents when cleaning the presses. But there is a common misconception that because water can be used for cleaning screens, squeegees and tools, that the waste water can just be discharged into the sewer. However, the water-based ink is not just water. There are pigments, binders, thickeners, and sometimes, even co-solvents in the ink residue.

Many printers believe that screen printing using water based inks is the cutting edge of textile printing. So why isn't everybody using them?

Water-based inks cure as water evaporates out of the ink so they have a longer – and more difficult – drying time than plastisol inks. This means that the water – along with whatever in the ink evaporates with the water – enters the environment.

If using water-based ink, the facility must have the drying capacity to remove the water. The dryers used for water-based printing tend to be larger than those needed for plastisol. In plastisol printing, the ink film must only reach the cure temperature for a brief moment. With water-based ink, the temperature must be reached and then held until all of

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the solvent (water) is removed. There are water-based inks that will air dry but they are usually only acceptable for craft level printing as the room required for curing greatly reduces productivity.

Finally, all water-based inks can start to dry out during use, so care must be taken to prevent the ink from drying on the screen. If water based ink is left in open mesh for even a short period of time, it can clog the mesh and ruin the screen. Practiced waterbased ink printers must always be conscious of how long a screen sits between prints to prevent the ink from "drying in". While modern water-based inks are less prone to this phenomenon, it is still a concern. In addition, overall shelf life is limited.

There have been major improvements in manufactured water-based inks in recent years. These newer inks have a number of performance advantages over the basic water-based inks discussed above and are as potentially eco-friendly and sustainable as any alternative. For example, they resist drying, and remain useable far longer than traditional water-based and discharge inks. They can be re-constituted with water — and additional binder, if needed — which can cut back on waste. Shelf life of these newer water-based inks is substantially longer as well because the manufacturers have developed technology to encapsulate the water in the ink in such a way that it does not readily evaporate until printed.

Much like traditional plastisol, these water-based inks are sold ready to use as colors or underbases and have a thicker viscosity that yields greater opacity on finished prints. They can be reduced with water and other modifiers for a softer hand.

PLASTISOL INKS: Plastisol inks, commonly used for textile printing and especially for t-shirts, are a PVC-based ink composed of a clear, thick plasticizer fluid and PVC resin. The full name for PVC is polyvinyl chloride. The PVC life cycle results in the release of toxic, chlorine-based chemicals which end up as by-products such as carcinogenic and highly toxic dioxin and PCB. The major health concern about plastisol inks is not that they are PVC-based but that they contain phthalates. Phthalates are added to PVC plastics to transform a hard plastic into a soft, rubbery plastic by allowing the long polyvinyl molecules to slide against each other instead of rigidly binding together. These phthalates used in plastisol ink to make the PVC flexible are also carcinogenic and much research has been done which substantiates the damage phthalates do to us, especially to fetuses and newborns.[5] They are released into the environment during the printing and curing of the ink and they will continue to exhaust toxins when exposed to a radiant heat source, such as a dryer or even sunlight. Plastisol inks contains virually no solvents at all.

Plastisol does not "dry". In order for a compound to dry, there must be evaporation of some kind of solvent. These inks typically contain less than 1% VOC. Some water based plastisol inks can contain about 30%

VOCs.[6] Since plastisol has little or no solvent, it cannot dry. Plastisol is a thermoplastic ink – meaning it is necessary to heat the printed ink film to a temperature high enough to cause the molecules of PVC resin and plasticizer to cross-link (i.e., bond to the fabric) and solidify, or cure. Cross-linking agents must be used to effect the bonding, and formaldehyde is often a necessary component of these cross linkers. The temperature at which most plastisol for textile printing cures at is in the range of 300 °F to 330 °F. Because of this characteristic, plastisol can be left in screens for long periods of time without clogging the mesh, the lids can be left off of the ink containers (although keeping them covered is a good practice to keep lint and dirt out of the ink). And ink left at the end of the job can be returned to the container for reuse without any adverse affects. This last practice is a great benefit in reducing waste product. It is ready to use right out of the container more than 90% of the time. In most applications, it can be printed wet-on-wet, which allows for increased production speeds. It comes in formulations that can be printed on light and dark fabrics.

Since Plastisol is a thermoplastic, it will remelt if it comes in contact with anything hot enough. For that reason, plastisol prints cannot be ironed. If an iron touches a print, it will smear the ink.

Plastisol ink also creates an ink film that can be felt with the hand. The higher the opacity of the ink, the greater the hand. This heavy hand is considered a disadvantage at the consumer level.

Because both PVC and phthalates are chemicals of concern, many companies are offering phthalate free plastisol inks. These non-phthalate inks are not as easy to work with as standard plastisols, but it is possible to use them to accomplish most of the common printing techniques. In addition to non-phthalate plastisols, there are some new acrylic-based screen printing inks that are sometimes referred to as non-PVC and non-phthalate plastisols. Why? Well, an acrylic-type resin replaces the PVC resins used in regular plastisol. Also, the plasticizer in acrylic inks is normally non-phthalate, making these inks an even more eco-friendly alternative.

With some experience, acrylic inks can be successfully made into high-density designs. The finished prints lack the soft finish of a standard high-density plastisol print, but this may be an acceptable compromise to some customers.

Acrylic inks are usually a little more costly than standard plastisols and are substantially more expensive than standard water-based inks.

The hazards of plastisol printing inks are not just to personal health but also to environmental health. Garments coated with plastisol inks do not decompose and they are difficult to recycle. The result is that you may soon grow tired of your Rolling Stones concert tee shirt and trash it, but it will live on in immortality in the local landfill. If clothing

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designed with PVC plastisol ink is incinerated, the trapped dioxins plus hydrochloric acid (a primary component of acid rain) are released into the atmosphere.

New inks have also been developed for digital printing, such as latex, resin and UV curable inks. We'll discuss them next week with digital printing.

Dr. Nicholas Hellmuth, of FLAAR (<http://www.wide-format-printers.org/> (<http://www.wide-format-printers.org/>)), writing in his January, 2011 blog, said of the proliferation of green claims by ink manufacturers: "I would bet that 90% of these claims were misleading at best. I would bet that more than 50% of these claims are fraudulent and inaccurate... I looked at the MSDS of inks called water-based and almost gagged when I saw the chemical recipe, with the hazardous warnings. If you make a list of the nasty chemicals that are really in the ink, depending on what chemicals you consider unhealthy, resin ink could potentially be considered less unhealthy than even traditional water-based ink. In other words, there is a potential that resin inks could be considered better than water-based inks. But there are so many diverging opinions that I will be discussing this with other ink chemists as I meet them during the expos early in this year (2011)."

So you'd think that the major source of the emissions comes from using these inks – the printing process itself. You'd be wrong: the majority of emissions to the atmosphere from textile printing is from the drying process, which drives off volatile compounds. The largest VOC emission source is the drying and curing oven stack, which vents evaporated solvents to the atmosphere. Another source of fugitive VOC emissions comes from the "back grey" (fabric backing material that absorbs excess print paste), which is dried before being washed. In processes where the back grey is washed before drying, most of the fugitive VOC emissions from the back grey will be discharged into the waste water. In some roller printing processes, steam cans for drying printed fabric are enclosed, and drying process emissions are vented directly to the atmosphere.

As of the publication date of the EPA Sector notebook on the Printing and Publishing Industry (1995), there was no add-on emission control technology for organic solvents used in the textile printing.

Another environmental hazard in printing textiles comes in the screen and equipment cleaning steps – which use lots of water. When you finish a printing run, for example, there are still approximately 1.5 gallons of printing paste in the system, predominantly in the tubes that run between the paste reservoirs and the screens. This is simply rinsed out and flushed down the drain. If using plastisol inks, in order to emulsify the ink for easy removal from screens, squeegees, flood bars, spatulas, and work surfaces, it is necessary to use some type of solvent.

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Solvents used to clean printing equipment include toluene, xylene, methanol, and methyl ethyl ketone (MEK). In addition, blankets used to transfer the ink-filled image to sheets of paper are cleaned with washes that contain glycol ethers and 1,1,1-trichloroethane (TCA). The type of solvent used depends largely on the equipment to be cleaned. For example, a blanket wash must dissolve ink quickly and dry rapidly with minimal wiping. Conversely, a solvent that is intended to clean a chain of ink rollers must evaporate slowly, to insure that it does not flash off before it has worked its way through all the rollers. Water based inks contain co-solvents, additives, dyes and/or pigments, which make the water clean up full of possibly hazardous materials. All of these components must be washed thoroughly.

Irrespective of the type of inks used, all printers attempt to reclaim screens, which are a major cost item. Failure to reclaim screens and ruined screens cost on average \$5,000-\$10,000 per year. One study showed chemical reclamation cost between \$2 and \$10 per average screen, while screen disposal cost just shy of \$50. Screen reclamation is a particular challenge to screen printers, because inks and solvents cannot go down the drain and some of the chemicals used to reclaim mesh are restricted. The waste water will contain particulates comprised of ink pigment, emulsion and emulsion remover. Reclaiming screens involves these steps:

1. Remove the paste: Any and all excess paste in the screen should be "carded off" for reused on another job. The screen must then be washed to remove any remaining paste because the paste will interfere with the process of removing the stencil. Screen cleaning solvents are a source of VOC emissions.
2. Emulsion removal: The stencil or emulsion is removed by spraying the screen with a solution of water and emulsion remover chemicals which is comprised mainly of sodium metaperiodate, then rinsing the solution away with fresh water.
3. Haze or ghost image removal: Finally, if any haze or "ghost image" remains, a haze remover must be applied. Some haze remover products are caustic and can damage or weaken the screen. Haze removers make screens brittle and tear easily, therefore only small amounts should be used. Ghost image is a shadow of the original image that remains on the screen caused by paste or stencil caught in the threads of the screen.

The best way to reduce VOCs during screen reclamation are related to technology and best practices, such as using high pressure wash systems and modifying how chemicals are applied to the screens.

The waste ink and the solvent must be disposed of properly in order to minimize environmental impact. There are three major areas of concern for this wastewater:

- Heavy metals, which can be found in the residue of ink, can enter the sewer system and contaminate sewage sludge
- Heavy concentrations of certain chemicals can disrupt the pH balance at the treatment plant and disrupt the bacterial systems essential to the sewage treatment process
- Combinations of mixtures with low flash points can cause flammability concerns in the sewage system

Leftover print pastes cannot be allowed to enter the wastewater treatment system. It must be disposed of as a solid waste. Sites where sludge piles are used can have environmental problems with ground and groundwater contamination. These sludge storage areas should be equipped with waterproof linings to prevent this from occurring.

In fact, textile printing is becoming an important wastewater source as the water-based materials replace the organic solvents. The wastewaters originating from this operation are often strong and may contain toxics, although their volume is still quite low.[7]

The screen printing industry has been very proactive in the creation of products that can minimize the impact of these cleaning processes. Solvents are available that are "more" environmentally sensitive than the traditional petroleum based solvents. Companies are beginning to market biochemical cleaning solutions, inks and additives to replace current solvents or toxic chemicals— examples include the use of terpene d-limonene (derived from citrus fruit), coconut oil, soybeans, seaweed and fatty amides. (8) In addition, there are many types of filtration and cleaning systems available to capture inks and solvent residues to minimize the solids that are discharged into the sewer system.

Aside from improvements to the building itself and efforts to minimize water use and to use inks and paste effectively, there are some things every printer can do to reduce their environmental impact:

- Minimize downtime on the press
- Make rejects history
- Maintain dryers – is it really worth saving money by buying that second hand dryer? A new one is 30% more efficient, twice the price but the energy savings will pay the difference in 9 months. An average printing line has a nominal power rating of 75 kW, most of which is required for the drying process.

[1] The Indian Textile Journal,
<http://www.indiantextilejournal.com/articles/FAdetails.asp?id=2420>
 (<http://www.indiantextilejournal.com/articles/FAdetails.asp?id=2420>)

[2] <http://www.epa.gov/ttnchie1/ap42/ch04/final/c4s11.pdf>
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(http://www.apocp.org/cancer_download/Volume11_No4/c%20919-22%20Sellappa.pdf)

[4] http://www.sgia.org/govt/downloads/CaseStudy_1.pdf
(http://www.sgia.org/govt/downloads/CaseStudy_1.pdf)

[5] <http://www.ourstolenfuture.org/newscience/oncompounds/phthalates/p>
(<http://www.ourstolenfuture.org/newscience/oncompounds/phthalates/p>)

[6] <http://www.castleink.com/a-water.html>
(<http://www.castleink.com/a-water.html>)

[7] Kabdasli, M Gurel & Tunay, O., "Characterization and Treatment of Textile Printing Wastewaters", Environmental Technology, Vol 21, Issue 10, 2000, pp. 114 – 1155

(8) http://www.pneac.org/sheets/all/biochemicals_for_the_printing_industr
(http://www.pneac.org/sheets/all/biochemicals_for_the_printing_industr)

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Tags: plastisol ink, Printing, Solvent, Textile, toluene, Toxic Release Inventory, Trichloroethylene, United States, VOC, water based inks

Categories : Printing, Uncategorized

Printing – part 2

Bear with me – I'll eventually get to the environmental aspects of printing – including digital printing. But I think it's important to know the basic steps and processes in order to be able to understand green claims. So there will still be a Printing – part 3 before we get to the environmental topics.

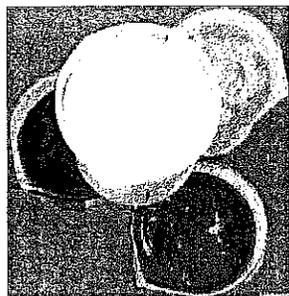
Specific fiber materials and dye types interact with each other in well defined ways, and it is these interactions that determines the best composition of a printing paste or ink. The preparation of this paste is one of the most important steps in printing. (note: paste and ink seem to be interchangeable names for the same substances).

It requires a set of special characteristics – one of the most important is

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that the paste be viscous (like paint or pudding).



(<https://oecotextiles.files.wordpress.com/2012/01/eco-friendly-textile-printing-paste3.jpg>)

Printing paste ready to use.

This quality is called “flow”. The choice of an agent to create this flow (called a thickening agent) is a critical component. In addition, each printing method we talked about last week (flat bed, screen or rotary), as well as the nature and sequence of fixation and aftertreatment steps requires a specific kind of printing ink or paste.

For direct printing, a printing paste is prepared by dissolving the dyes in hot water to which is added urea and a solvent (ethylene glycol, thioethylene glycol, sometimes glycerine or a similar substance – and sometimes water). This solution is stirred into a thickener that is easily removed by washing. Small amounts of oxidizing agents are added.[1]

After making the printing paste, it is essential to strain or sieve all colours in order to free them from lumps, fine sand, and other foreign objects, which would inevitably damage the highly polished surface of the engraved rollers and result in bad printing. Every scratch on the surface of a roller prints a fine line in the cloth, and too much care, therefore, cannot be taken to remove, as far as possible, all grit and other hard particles from every color.

The straining is usually done by squeezing the paste through filter cloths as artisanal fine cotton, silk or industrial woven nylon. Fine sieves can also be employed for pastes that are used hot or are very strongly alkaline or acid.

All the necessary ingredients for the paste are metered (dosed) and mixed together in a mixing station. Since between 5 and 10 different printing pastes are usually necessary to print a single pattern (in some cases up to 20 different pastes are applied), in order to reduce losses, due to incorrect measurement, the preparation of the pastes is done in automatic stations. In modern plants, with the help of special devices, the exact amount of printing paste required is determined and prepared in continuous mode for each printing position, thus reducing leftovers at the end of the run.

There are two main types of paste used:

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1. Pigmented emulsions: Pigmented emulsions are suitable for all fiber types, they are able to dry by evaporation at room temperature and are able to be cured at 320 degrees F for 2 – 3 minutes, which achieves washing and drycleaning fastness. A typical formulation of a pigment emulsion printing paste is:

COMPONENTS	RATIO
Water	10%
Emulsifier	1%
Thickener	4%
White spirit	62%
Catalyst solution	3%
Binder	15%
Pigment dispersion	5%

Pastes which are entirely water-based are obtained by replacing the white spirit with water.

1. Plastisol printing pastes : based on a vinyl resin dispersed in plasticizer; characterized by virtually 100% non-volatility (no solvent is present); used frequently for printing on dark or dark-colored fabrics. Components of plastisol printing pastes consist of
1. PVC homopolymer (i.e., a vinyl resin) dispersed in phthalate plasticizer;
 2. liquid plasticizer (i.e., dialkyl phthalate or di-iso-octyl phthalate);
 3. heat and light stabilisers (i.e., liquid barium/cadmium/zinc combined with epoxy plasticizer);
 4. high proportion of extender to improve wet-on-wet properties.

Printing pastes are made up of four main components:

1. The coloring matter used (dyes or pigments)
2. The binding agent
3. The solvent
4. The auxiliaries.

The *coloring matter* used can be either dyestuffs or pigments. Dyes are in solution and become chemically or physically incorporated into the individual fibers. The dyes used for printing mostly include vat,

reactive, naphthol and disperse colours which have good fastness properties. Pigments are largely insoluble, so often organic solvents are used (such as benzene or toluene). The pigmented printing paste must physically bind with the fabric, so must contain a resin, which holds the pigment in place on top of the fabric.

The *binder* is decisively responsible for the fastness of the pigment prints during use. The most important fastnesses are wash fastness, chemical cleaning fastness and friction fastness. The handle and the brilliance of the colours are also influenced by the choice of binder.

Binders are in general "self-crosslinking polymers" based mainly on acrylates and less commonly on butadiene and vinyl acetate, with solid contents of approx. 40 – 50%. (2) Binders made of natural wood resin, wax stand linseed or safflower oils and chitosan were tested in order to obtain biodegradable printing paste. Promising results were reported when using chitosan as a binder, and no solvent was necessary.

Solvents are usually added in the formulation of the thickeners. The type of paste (emulsion vs. plastisol) and thickening agent determines the type of solvent needed. White spirit is a commonly used organic solvent, as is water. The organic solvent concentration in print pastes may vary from 0% to 60% by weight, with no consistent ratio of organic solvent to water. Water based solvents may still emit VOC's from small amounts of solvent and other additives blended into the paste. The liquid waste material of water based pastes may also be considered hazardous waste.

The most important *auxiliaries* are the thickening agents. Printing paste normally contains 40 – 70% thickener solution. [3] The printing thickeners used depend on the printing technique and fabric and dyestuff used. Typical thickening agents are starch derivatives, flour, gum Senegal and gum arabic (both very old thickenings, and very expensive today) and albumen. A starch paste is made from wheat starch, cold water, and olive oil, and boiled for thickening. Starch used to be the most preferred of all the thickenings, but nowadays gums or alginates derived from seaweed is preferred as they allow better penetration of color and are easier to wash out.

Hot water soluble thickening agents as native starch are made into pastes by boiling; the colorants and solvents were added during this step then cooled, after which the various fixing agents would be added. Colors are reduced in shade by simply adding more stock printing paste. For example, a dark blue containing 4 oz. of methylene blue per gallon may readily be made into a pale shade by adding to it thirty times its bulk of starch paste or gum, as the case may be. Mechanical agitators are also fitted in these pans to mix the various ingredients together, and to destroy lumps and prevent the formation of lumps,

Printing | O ECOTEXTILES

keeping the contents thoroughly stirred up during the whole time they are being boiled and cooled to make a smooth paste. Most thickening agents used today are cold soluble and require less stirring.

Almost exclusively synthetic, acrylate-based thickening agents are used in pigment printing – or none at all, since the mix of resins, solvents and water produces thickening anyway.

Generally, the auxiliaries used for printing are the same as those used in dyeing with a dye bath. These types of auxiliaries include:

- Oxidizing agents (e.g. m-nitrobenzenesulphonate, sodium chlorate, hydrogen peroxide)
- Reducing agents (e.g. sodium dithionite, formaldehyde sulphonylates, thiourea dioxide, tin(II) chloride)
- Wetting agents (nonionic, cationic, anionic)
- Discharging agents for discharge printing (e.g. anthraquinone)
- Humectants (urea, glycerine, glycols)
- Carriers: (cresotinic acid methyl ester, trichlorobenzene, n-butylphthalimide in combination with other phthalimides, methylnaphthalene)
- Retarders (derivatives of quaternary amines, leveling agents)
- Resist agents (zinc oxide, alkalis, amines, complexing agents)
- Metal complexes (copper or nickel salts of sarcosine or hydroxyethylsarcosine)
- Softeners
- Defoamers, (e.g. silicon compounds, organic and inorganic esters, aliphatic esters, etc.)
- Resins^[4]

[1] Ullman's Fibers, page 766

(2) Lacasse, K., and Baumann, W., Textile Chemicals: Environmental Data and Facts, Springer, 2004; p. 234

[3] Fritz Ullmann, editor, Ullmann's Fibers: Textile and dyeing technologies, vol 2; Wiley-VCH Verlag GmbH & Co, KGaA, weinheim, 2008, p. 759

[4] Ullman, p. 743

Comments : 1 Comment »

Tags: binder, Business, Chemicals, Dye, Dyes and Pigments, Pigment, Printing, printing paste, Solvent, solvents

Categories : Printing, Uncategorized

O ECOTEXTILES

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EXHIBIT

11

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
 434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013. MADISON 9-4711

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.						DATE OF INSPECTION See Below
MAILING ADDRESS 17818 South Figueroa Street, Gardena, CA. 90248						PERMIT APPL. NO. See Below
EQUIPMENT LOCATION (ADDRESS)						A.P.C.D. ZONE NO. CD
REASON PERMIT IS REQUIRED	NEW CONSTRUCTION (X)	CHANGE OF OWNERSHIP ()	CHANGE OF LESSEE ()	CHANGE OF LOCATION ()	EQUIPMENT ALTERATION ()	
DATE CONSTRUCTION AUTHORIZED. 1-8-75		BY MNH		TIME SPENT MAKING INSPECTION	FROM	TO
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT. 24 hrs/day, 6 days/wk						
WEATHER Clear		WIND	ESTIMATED COST	BASIC EQUIPMENT	A.P.C. EQUIPMENT. \$ See Below	
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER. Mr. John Armstrong						
FOR DUST & FUME PROBLEMS ONLY		PROCESS WEIGHT (S)	LBS. /HR. ALLOWED LOSSES	LBS. /HR. ESTIMATED LOSSES	LBS. /HR.	
OFFICIAL EQUIPMENT DESCRIPTION, *CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS.						
<p><u>APPLICATION NO. A-83714</u> (APC COST \$44,000)</p> <p>AIR POLLUTION CONTROL SYSTEM CONSISTING OF:</p> <ol style="list-style-type: none"> 1. MIST ELIMINATOR, SPETZMAN INDUSTRIES, PACKED FIBERGLASS TYPE, WITH 805-SQ. FT. TOTAL NET FILTERING AREA AND AN AIR WASHER. 2. EXHAUST SYSTEM WITH A 40-H.P. BLOWER VENTING A DRIER, AN OVEN AND A STEAMER. 						
<p><u>APPLICATION NO. A-83715</u> (BASIC COST: \$300,000)</p> <p>FABRIC-PRINTING AND DRYING SYSTEM CONSISTING OF:</p> <ol style="list-style-type: none"> 1. PRINTER, STORK-BRABANT, DRUM TYPE, WITH A 3-H.P. FABRIC FEEDER, 20-H.P. PRINTING DRUM AND BELT DRIVE, FOUR 0.4-H.P. UNCURLERS, TWO 0.5-H.P. ROLLER FEEDERS, A 1/4-H.P. BELT GUIDE, TWELVE 3/4-H.P. DYE PUMPS, 0.74 H.P. GLUE PUMP, 5.36-H.P. BELT WASHING MACHINE AND AN 18 KW ELECTRIC HEATER. 2. DRIER, STORK-BRABANT, 11'-0" W. x 77'-0" L. x 9'-4" H., WITH THREE 1,908,000 BTU PER HOUR GAS BURNERS, THREE 40-H.P. CIRCULATING BLOWERS, 5-H.P. BELT CONVEYOR, TWO 5.63-H.P. EXHAUST BLOWERS, 1/2-H.P. BELT CONVEYOR GUIDE AND A 3-H.P. FABRIC FOLDER. 3. PAPER ROLL-UP STATION, 5-H.P., WITH A 3-H.P. ROLLER, 1/2-H.P. COOLING BLOWER, AND 0.24-H.P. AIR COMPRESSOR. 						
RECOMMENDED DISPOSITION	() APPROVE FOR PERMIT.	() APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW.	(X) HOLD. SEE EXPLANATION BELOW.	() DENY PERMIT.		
Pending further evaluation						
REVIEWING ENGINEER. () I CONCUR WITH RECOMMENDATIONS			SIGNATURE  M. N. Mansour Sr. A. P. Engineer			

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
LORPRINT, INC.	See P. 1	See P. 1

APPLICATION NO. A-83716 (BASIC COST: \$100,000)

STEAMER, STORK-BRABANT, 9'-5" W. x 32'-0" L. x 17'-4" H., WITH A 15-H.P. FEEDER, TWO 5-H.P. AND FOUR 3-H.P. CIRCULATING BLOWERS, TWO 5-H.P. COOLERS, 1-H.P. EXHAUST BLOWER, 0.74-H.P. OIL PUMP, AND A 3-H.P. FOLDER.

APPLICATION NO. A-83717 (BASIC COST: \$300,000)

FABRIC-DRYING AND HEAT-SETTING SYSTEM CONSISTING OF:

1. FEEDING STATION, WITH TWO 0.4-H.P. UNCURLERS, TWO 0.08-H.P. WIDTH ADJUSTERS, 0.3-H.P. STRAIGHTENING ROLLER, 13.8-H.P. EXPANDER ROLLERS, 8.9-H.P. FEEDER AND 0.34-H.P. COOLING BLOWER.
2. TENTER FRAME, 30-H.P., WITH A 8.9-H.P. WIDTH ADJUSTER.
3. OVEN, KRANTZ, 12'-10" W. x 120'-3" L. x 5'-9" H., WITH THREE 1,590,000 BTU PER HOUR AND FOUR 397,500 BTU PER HOUR GAS BURNERS, SEVEN 1/3-H.P. COMBUSTION AIR BLOWERS, SEVEN 20-H.P. CIRCULATING BLOWERS, FOUR 2-H.P. COOLING BLOWERS, TWO 1-H.P. THROTTLE FLAP ADJUSTERS, THREE 5-H.P. EXHAUST BLOWERS, TWO 0.4-H.P. SALVAGE CUTTERS AND 3.4-H.P. SALVAGE PNEUMATIC CONVEYOR.

HISTORY:

The subject applications were submitted by Lorprint, Inc., as Class I for an A/C and P/O the systems described above. The authority to construct was granted on 1-8-75 and the construction was completed on 4-15-75. The equipment is a new construction and has no previous permit history.

PROCESS DESCRIPTION:

This company is engaged in the printing of polyester fabrics and other synthetics, such as polyimid, acrylics and acetates. The printing process is a form of localized dyeing whereby a pattern or design is produced on a textile surface with the aid of Azo dispersed dyes. The production process consists of printing, drying, steaming, washing and, finally, heat-setting.

Fabrics to be printed are first washed in a detergent solution to remove all the oils left from the knitting operation. The fabric is then dried and heat-set in the tenter frame. Printed patterns are then applied to the fabric by 12 consecutive rollers.

SIGNATURE 
N. N. Mansour, Jr. M. E. Engineer

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.	APPL. NO. See P. 1	INSPECTION DATE See P. 1
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The dye is dried upon application to reduce its moisture content and minimize its spreading. The dye spreading is avoided since it causes the printed patterns to form rugged edges which significantly degrade the quality of the fabric.

The fabric then undergoes an aging process in a steamer for a period of 30 to 40 minutes. During this process the application of heat causes the polyester fibers to open up and promote the absorption of the dye stuff into the fibers. The fabric is then washed in a several-bath washing system to remove chemicals from the surface. Ideally, at the end of the washing process, only the dye stuff contained within the fibers will be left on the fabric. The rest of the oxidizing and accelerating chemicals would be drained to the sewage with the washing solution.

The fabric is finally dried and heat-set in the Krantz tenter frame. Finishing agents are applied to give the fabric the desired feel and texture.

Exhaust gases from the tenter frame, the steamer, and the drier are ducted to an air washer to reduce its temperature to 100°F or lower. The cooling operation was found to be essential to ensure the condensation of the collected contaminants. The exhaust is then introduced to a mist eliminator where liquid particulates are collected by the Poly-Maze bed and gravity-drained to the bottom of the unit. Cleaned air is exhausted at the top of the unit to the atmosphere.

The applicant indicated that the printing systems will be also used for the printing of paper. The patterns are transferred from the paper to the fabric by a special sublimation operation.

OBSERVATIONS: OBSERVATION DURING FIELD INSPECTION ON 11-4-75

During today's inspection the drier and the tenter frame were in operation. The emissions of smoke of violating opacity was noted at the APC system discharge. The observed opacities were recorded on the attached opacity sheet. The drier was operating at 300°F and a feeding speed of 25 yds/min. The tenter frame was operating at 350°F and a feeding speed of 26 yds/min. The pressure drop across the control equipment was recorded to be 7.0" W.C.

Shutting the printing system's drier down terminated smoke emissions from the control equipment. It was therefore evident that most of the emissions are generated in the drier and not in the tenter frame. The high pressure drop in the control equipment was an indication that the unit requires back-flushing or cleaning.

I informed Mr. Armstrong that I will recommend the denial of his application based on today's observed violation. Mr. Armstrong indicated that he is certain that cleaning the control equipment will significantly improve its performance and bring it to compliance with the Rules. He promised to have the control equipment serviced immediately.

SIGNATURE 
M. N. Mansour, Sr. A. P. Engineer

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.	APPL. NO. See P. 1	INSPECTION DATE See P. 1
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OBSERVATION DURING FIELD INSPECTION ON 11-13-75

This inspection was conducted upon the request of Mr. Armstrong to evaluate the control equipment after it was serviced. Mr. Armstrong stated that the unit was found to be quite dirty and the filter was loaded with organic oils. The filter was then washed down with a special detergent to remove all the oils. Water pressure at the irrigation spray nozzle inside the unit was also found to be quite low. The low pressure was due to the large pressure drop in the piping from the main header to the nozzles. To correct this problem the nozzles were connected directly to the city main water line. The equipment was evaluated first when paper was being processed in the printing system and solid color fabric is processed in the tenter frame. The operating parameter in the printing system's drier and the tenter frame were as follows:

Drier - Feeding rate, 26 yds/min. Operating temperature in the various modules 200°F, 200°F and 180°F. No. of printing drums in operation, 3.

Tenter Frame - Feeding rate, 41.5 yds/min. Operating temperature in the various modules, 350°F in all seven modules.

No visible emission of any kind was observed from the unit under the above operating condition. It appeared that the unit is performing satisfactorily and in compliance with the Rules.

Polyester fabric was then processed in the printing system. The operating parameter in the printing system's drier, the tenter frame, the APC system and the steamer were as follows:

Drier - Feeding rate, 28 yds/min. Operating temperature in the various modules = 300°F for all three modules. No. of printing drums in operation = 8. Type of fabric processed: Light weight polyester 5 oz/liner yd. (please see sample in file).

Tenter Frame - Feeding rate, 20 yds/min. Operating temperatures in the various modules, 300°F in all seven modules.

APC Equip. - Pressure drop across the unit, 6.3" W.C. Water pressure at irrigation nozzles, 45 psi (60 psi is recommended by the equipment manufacturer) Gases temperature at the inlet of the filter, 130°F, (during the pilot plant study the temperature was maintained at 100°F).

Steamer - Feeding rate - 10 yds/min.
Operating temp. 212°F.

SIGNATURE 
M. N. Mansour, Sr. A. P. Engineer

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT INC.	APPL. NO. See P. 1	INSPECTION DATE See P. 1
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Very light smoke emission (5%) was periodically noted at discharge of the control equipment. It appeared that the emission is mainly generated when fabric is processed in the printing system. I pointed out to Mr. Armstrong that although the observed emissions are not in violation of the Rules, it certainly gives the indication that the equipment may violate at a future date. I said maintaining the gas inlet temperature to the filter at 130°F instead of 100°F may have aggravated the emissions problem.

Mr. Armstrong said that he will install a booster pump to maintain water pressure at the irrigation at the recommended 60 psi. He will also add a bank of spray nozzles to further reduce the gas temperature at inlet of the filter to 100°F. I pointed out to him that since the steamer is vented to the control equipment, it might not be possible to further cool the gases by spray evaporation. Mr. Armstrong promised to contact me as soon as the proposed modification of the control equipment has been completed.

EVALUATION AND CONCLUSIONS:

Although the observed performance of the control equipment was satisfactory, the equipment appeared to have the potential of violating Rule 50. It therefore is recommended to hold the application until the proposed modification of the control equipment has been completed and then further evaluation of the equipment is conducted.

RECOMMENDATION:

Hold applications pending further evaluation.

lm:11-26-75

SIGNATURE 
M. N. Mansour, Sr. A. P. Engineer

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORPRINT, INC.	APPL. NO. A-83716	DATE OF INSPECTION 9/2/75
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textile surface with the aid of Azo dispersed dyes. The production process consists of printing, drying, steaming, washing and, finally, heat-setting.

Fabrics to be printed are first washed in a detergent solution to remove all the oils left from the knitting operation. The fabric is then dried and heat-set in the tenter frame. Printed patterns are then applied to the fabric by 12 consecutive rollers. The dye is dried upon application to reduce its moisture content and minimize its spreading. The dye spreading is avoided since it causes the printed patterns to form frayed edges which significantly degrade the quality of the fabric.

The fabric then undergoes an aging process in a steamer for a period of 30 to 40 minutes. During this process the application of heat causes the polyester fibers to open up and promote the absorption of the dye stuff into the fibers. The fabric is then washed in a several-bath washing system to remove chemicals from the surface. Ideally, at the end of the washing process, only the dye stuff contained within the fibers will be left on the fabric. The rest of the oxidizing and accelerating chemicals would be drained to the sewage with the washing solution.

The fabric is finally dried and heat-set in the Krantz tenter frame. Finishing agents are applied to give the fabric the desired feel and texture.

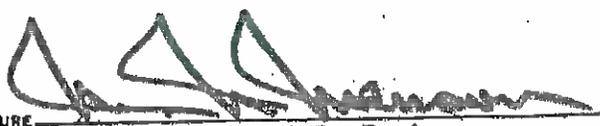
Exhaust gases from the tenter frame and the drier are ducted to an air washer to reduce its temperature to 100°F. or lower. The cooling operation was found to be essential to ensure the condensation of the collected contaminants. The exhaust is then introduced to a mist eliminator where liquid particulates are collected by the Poly-Maze bed and gravity-drained to the bottom of the unit. Cleaned air is exhausted at the top of the unit to the atmosphere.

The applicant indicated that the printing systems will be used for the printing of paper. The patterns are transferred from the paper to the fabric by a special sublimation operation.

OBSERVATIONS:

Today's field inspection was mostly spent in establishing the horse power rating of the electric motors within the various systems. The air pollution control equipment was observed while simultaneously venting the drier and the heat-setting oven. The steamer was vented directly to the atmosphere contradicting the approved plans for the authority to construct. Conclusive evaluation of the control system performance was not possible due to the repeated breakdown in the printing system operation. The systems broke down six times during a

SIGNATURE


M. Mansour, Sr. A.P. Engineer

ENGINEERING DIVISION
APPLICATION PROCESSING AND CALCULATIONS
A/C

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APPL. NO. See Below	DATE 12/24/74
PROCESSED BY MMM	CHECKED BY MMM

Lorprint, Incorporated
17818 South Figueroa Street
Gardena, CA 90240

APPLICATION NO. A-83714

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. MIST ELIMINATOR, SPEIZMAN INDUSTRIES, INC., WITH AN 805 SQ. FT. TOTAL NET FILTERING AND AN AIR WASHER.
2. EXHAUST SYSTEM WITH A 40-H.P. BLOWER, VENTING A DRIER, OVEN, AND STEAMER.

APPLICATION NO. A-83715

FABRIC PRINTING AND DRYING SYSTEM CONSISTING OF:

1. PRINTER, STORK-BRABANT, DRUM TYPE, WITH A 2.88-H.P. FABRIC FEEDER, 18.77-H.P. PRINTING DRUMS AND BELT DRIVE, 0.24-H.P. BELT GUIDE, TWELVE 0.75-H.P. DYE PUMPS, 0.74-H.P. GLUE PUMP, 5.36-H.P. BELT WASHING MACHINE, AND AN 18-KW. ELECTRIC HEATER.
2. DRIER, STORK-BRABANT, 11'-0" W. x 77'-0" L. x 9'-4" H., WITH THREE 1,908,000 BTU PER HOUR GAS BURNERS, THREE 40.23-H.P. CIRCULATION BLOWERS, 2.28-H.P. BELT CONVEYOR DRIVE, TWO 5.63-H.P. EXHAUST BLOWERS, 0.50-H.P. BELT CONVEYOR GUIDE, AND A 2.28-H.P. FABRIC FOLDER.

APPLICATION NO. A-83716

STEAMER, STORK-BRABANT, 9'-5" W. x 32'-0" L. x 17'-4" H., WITH A 11.40 FABRIC FEEDER, TWO 4.02-H.P. AND FOUR 2.95-H.P. CIRCULATION BLOWERS, TWO 5.36-H.P. FABRIC COOLERS, 1.07-H.P. EXHAUST BLOWER, 0.74-H.P. OIL PUMP, AND A 2.68-H.P. FABRIC FOLDER.

APPLICATION NO. A-83717

FABRIC-DRYING AND HEAT-SETTING SYSTEM CONSISTING OF:

1. FABRIC-FEEDING STATION, WITH 0.3-H.P. STRAIGHTENING ROLLERS, 13.8-H.P. EXPANDER ROLLERS, AND A 9-H.P. FABRIC FEEDER.
2. TENTER FRAME WITH AN 80-H.P. MAIN DRIVE, AND TWO, 2-H.P. WIDTH ADJUSTORS.
3. OVEN, H. KRANTZ, 12'-10" W. x 120'-3" L. x 5'-9" H., WITH THREE, 1,590,000 BTU/HOUR AND FOUR, 397,500 BTU/HOUR GAS BURNERS; SEVEN 20-H.P. CIRCULATION BLOWERS; FOUR, 2-H.P. FABRIC-COOLING BLOWERS, 0.5-H.P. THROTTLE FLAPS ADJUSTOR, AND THREE, 5-H.P. EXHAUST BLOWERS.

ENGINEERING DIVISION
APPLICATION PROCESSING AND CALCULATIONS
A/C

PAGES 3	PAGE 2
APPL. NO. See p. 1	DATE 12/26/74
PROCESSED BY MMM	CHECKED BY MMM

4. FABRIC-FOLDING STATION WITH A 9-H.P. DRIVE AND 12-H.P. SALVAGE PNEUMATIC CONVEYOR.

HISTORY:

The subject applications were submitted by Lorprint, Inc., as Class I for an A/C and P/O, the systems described above. The equipment is a new construction and has no previous permit history.

PROCESS DESCRIPTION:

This company is engaged in the printing of polyester fabrics and other synthetics, such as polyamid, acrylics, and acetates. The printing process is a form of localized dyeing whereby a pattern or design is produced on a textile surface with the aid of Azo dispersed dyes. The production process consists of printing, drying, steaming, washing, and, finally, heat setting.

Fabrics to be printed are first washed in a detergent solution to remove all the oils left from the knitting operation. The fabric is then dried and heat set in the tenter frame. Printed patterns are then applied to the fabric by 12 consecutive rollers. The dye is dried upon application to reduce its moisture content and minimize its spreading. The dye spreading is avoided since it causes the printed patterns to form rugged edges which significantly degrade the quality of the fabric.

The fabric then undergoes an aging process in a steamer for a period of 30 to 40 minutes. During this process the application of heat causes the polyester fibers to open up and promote the absorption of the dye stuff into the fibers. The fabric is then washed in a several-bath washing system to remove chemicals from the surface. Ideally, at the end of the washing process, only the dye stuff contained within the fibers will be left on the fabric. The rest of the oxidizing and accelerating chemicals would be drained to the sewage with the washing solution.

The fabric is finally dried and heat set in the Krantz tenter frame. Finishing agents are applied to give the fabric the desired feel and texture.

Exhaust gases from the tenter frame, the drier, and the steamer are ducted to an air washer to reduce its temperature to 100° F. or lower. The cooling operation was found to be essential to ensure the condensation of the collected contaminants. The exhaust is then introduced to a mist eliminator where liquid particulates are collected by the Poly-Maze bed and gravity-drained to the bottom of the unit. Cleaned air is exhausted at the top of the unit to the atmosphere.

The applicant also indicated that the printing systems will be used for the printing of paper. The patterns are then transferred from the paper to the fabric by a special sublimation operation. The transferring process is performed in a different facility other than that under consideration.

ENGINEERING DIVISION
APPLICATION PROCESSING AND CALCULATIONS
A/C

PAGES	3	PAGE	3
APPL. NO.	See p. 1	DATE	12/26/74
PROCESSED BY	MNM	CHECKED BY	MNM

EVALUATION AND CONCLUSION:

The emission of air contaminants during the drying and heat setting of textiles was reportedly attributed to certain dye carriers used in the dyeing operation and/or to the oil contained in the fabric from the knitting operation. In the case of fabric printing, the applicant indicated that no dye carriers would be used. The printing is achieved by a dispersed water-base-type dye that is applied to the fabric with the aid of a thickening agent. The elimination of the carrier use is believed to reduce appreciably the amount of contaminants emitted from the drying and heat-setting ovens.

The applicant is proposing to vent all basic equipment to a Speizman mist eliminator. The capability of the Speizman unit in controlling the contaminants generated was demonstrated at the same plant location by a small scale unit (pilot plant, Application No. A-81468). The unit performed quite satisfactorily while venting a tenter frame processing dyed polyester fabric. The amount of air contaminants emitted from the controlled oven was felt to be compatible if not more than that generated while processing the printed fabric. Based on this observation, it is speculated that contaminants emission from the vented basic equipment under consideration should be adequately controlled by the full-scale unit.

Design calculation indicates that the exhaust ducts are adequately sized for a reasonable system resistance. A number of dampers would be required to balance the system at the desired cfm at each vent location. The calculation showed, however, that the exhaust blower motor is slightly undersized. Taking into consideration that electric motors are normally underrated by 20%, the deficiency in the power requirements should not have an adverse effect on the motor performance.

The mist eliminator is sufficiently sized to achieve a filtering velocity of 25 fpm. This filtering velocity is recommended by the manufacturer to achieve high-collection efficiency and long filter life. The tested pilot plant unit was found to perform satisfactorily at a filtering velocity as high as 33 fpm. A lower filtering velocity, however, will increase the residence time of the gas in the fiberglass bed and increases the unit's collection efficiency. It is to be noted that the actual gas filtering velocity through the filter will be lower than the calculated value due to the gas cooling in the air washer prior to the filter.

Based on the pilot plant performance, no public nuisance is anticipated from the system's operation. The plant is located in an industrial area where the potential of public nuisance is very minimal.

RECOMMENDATION:

Issue an A/C.

EXHIBIT

12

LORBER INDUSTRIES

Submittal

SCAQMD

W. W. SCHOELLERMAN
5619 WEST 77th STREET
LOS ANGELES, CALIF. 90045
(213) 776-5979

Jan 24, 1983

Lorber Ind.
17908 S. Figueroa St.
Gardena, Ca.

Control Equipment:

- a (2) PE-4D-2 Smog Hog System's tandem pass.
- b Total air movement in each Smog Hog, 14,500 acfm @ 125 degrees
- c Precipitator is not shut down at any time during operation
- d Oil drains off plates into a sump in the Smog Hog. From the Smog hog sump into a sewer treatment tank. During the cleaning or the removing of the collection parts, only one modual is shut down at a time. At this time the tadem part protects the sytem from losing the contaminants.
- e The wet bulb temperature is 108 degrees. The dry bulb before the precipitor will be 125 to 130 degrees. A cooling tower will be used to control the air temperature by runing cooling water through a coil on each smog hog. A modulating water valve controled by a temperature probe and motor will control the water going through coil.
- f The expected efficiency should be above 95% on all types of contaminants and 100% of all visable contaminants.
- g Approx. 2 1/2 " of water static pressure though complete system
- h No electrical resistivity in the oil
- i Cells & etc are cleaned in detergent
- j 12,000 volts on the loinzers, 6,000 volts on the cells. The total power 800 watts on each Smog Hog or a total of 1,600 watts on both systems
- k All this information in the drawings submitted an future drawings to be added later.

W. W. Schoellerman, Field Eng.

EXHIBIT

13

SOUTH FIGUEROA



Note:
 The isopleths noted on this figure are based on a limited data set. Additional data would very likely alter the interpretations depicted. The isopleths are for illustration only to depict one interpretation based on the data set that exists. Actual conditions may vary.

- General Notes**
- Groundwater Well/ Boring Location
 - Lorber Geoprobe Boring Location
 - Lorber CPT/ Hydropunch Boring Location
 - Lorber Groundwater Monitoring Well Location
 - Former Unpaved Dirt Surface
 - Surface Drainage Flow Direction
 - Lorber's Sewer Flow Direction
 - Groundwater Concentration Contour in ug/L

Project Details

Name
Sahm Broadway Property

Address
18037 South Broadway
Gardena, CA

Number
8137

Figure Details

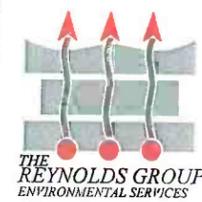
SITE PLAN WITH SHALLOW GROUNDWATER
1,1-DCA CONCENTRATION CONTOUR
(2000-2004)

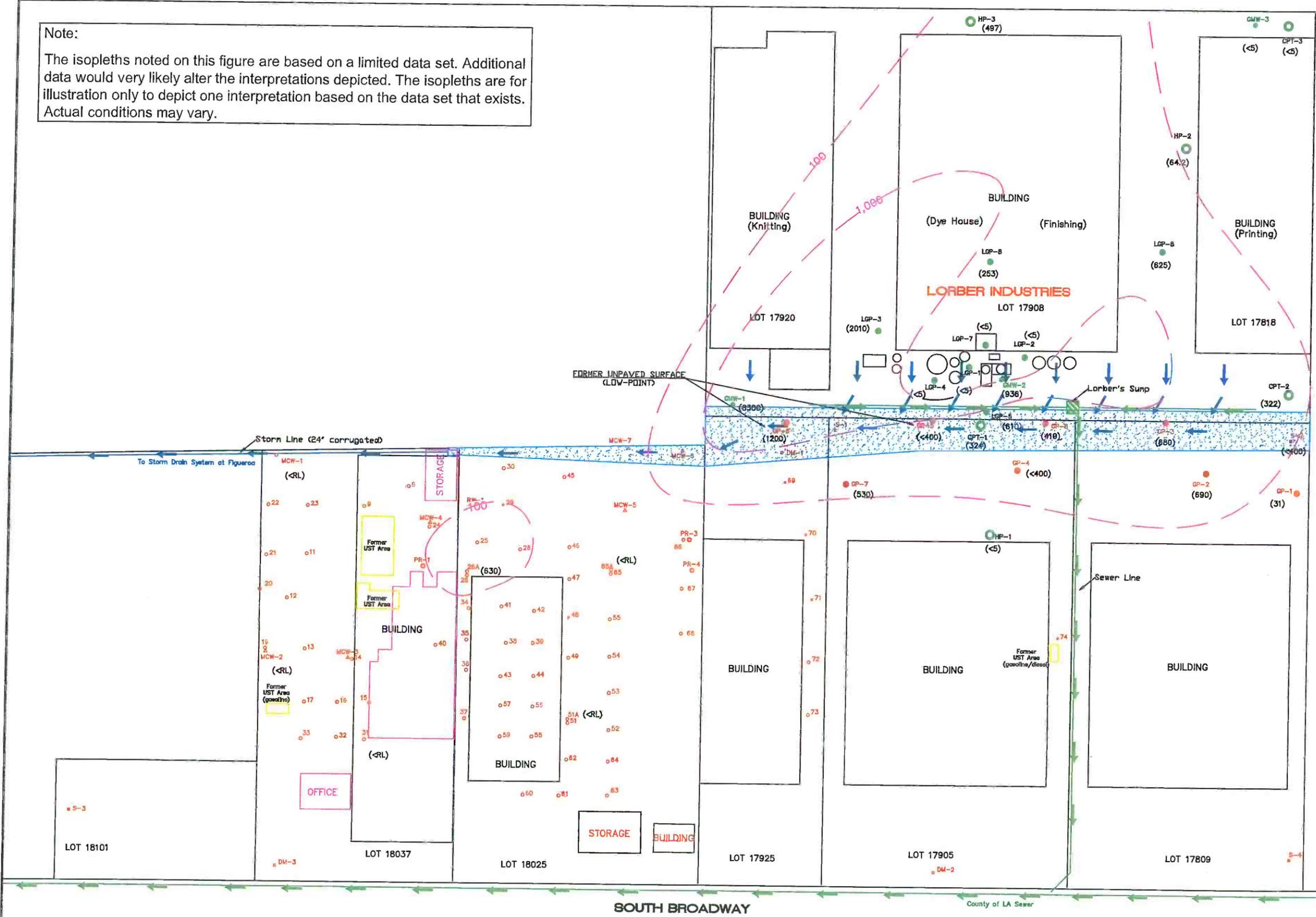
Figure #
Figure 3

Revise Date
August 2015

0' 100' Scale
1" = 100'
Approximate Scale

Company Information





SOUTH FIGUEROA



Note:
The isopleths noted on this figure are based on a limited data set. Additional data would very likely alter the interpretations depicted. The isopleths are for illustration only to depict one interpretation based on the data set that exists. Actual conditions may vary.

- General Notes**
- Groundwater Well/ Boring Location
 - Lorber Geoprobe Boring Location
 - Lorber CPT/ Hydropunch Boring Location
 - Lorber Groundwater Monitoring Well Location
 - Former Unpaved Dirt Surface
 - Surface Drainage Flow Direction
 - Lorber's Sewer Flow Direction
 - Groundwater Concentration Contour in ug/L

Project Details

Name	Sahn Broadway Property
Address	18037 South Broadway Gardena, CA
Number	8137

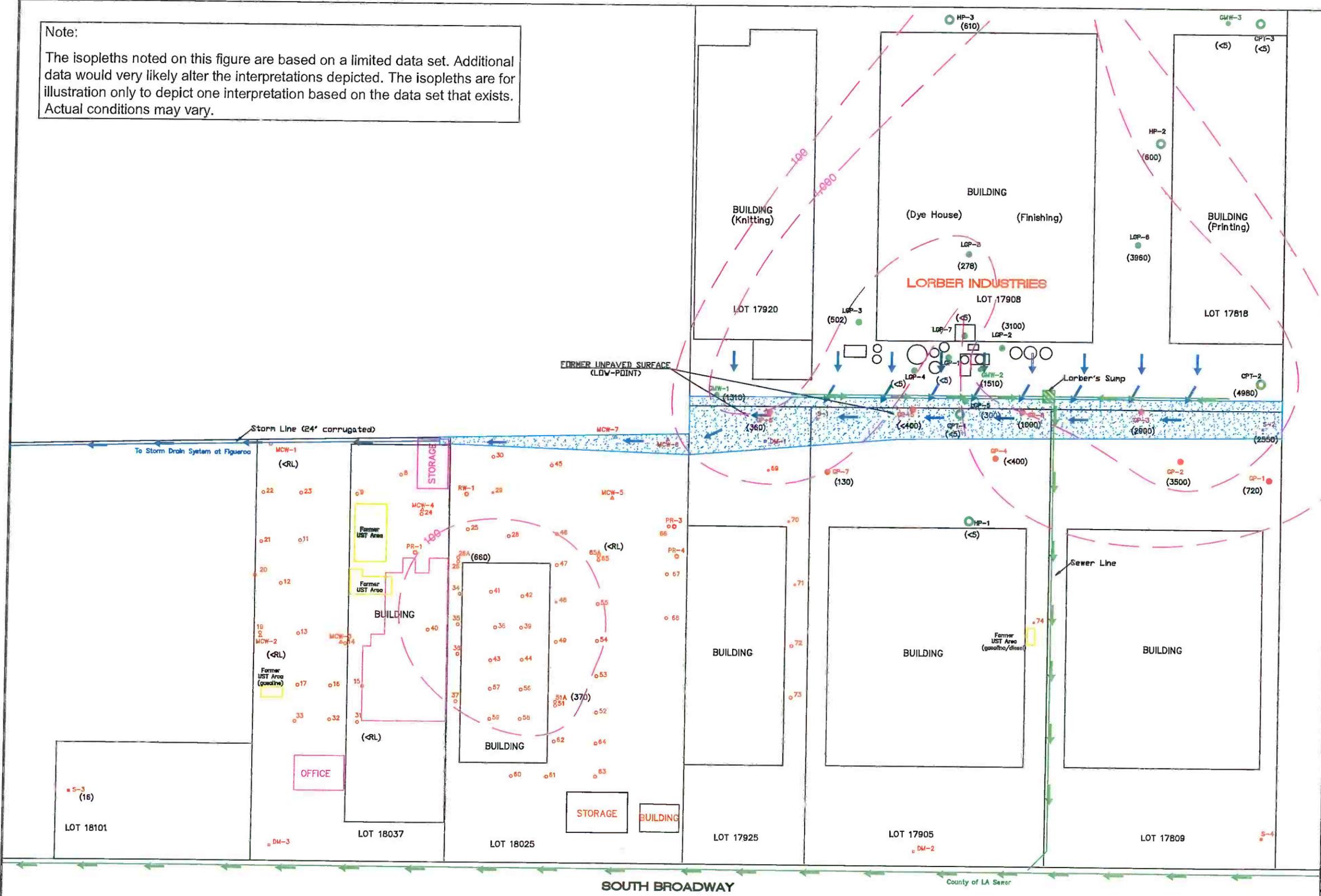
Figure Details

SITE PLAN WITH SHALLOW GROUNDWATER 1,1-DCE CONCENTRATION CONTOUR (2000-2004)	
Figure #	Figure 4
Revise Date	August 2015
Scale	1" = 100' Approximate Scale

Company Information

THE REYNOLDS GROUP
ENVIRONMENTAL SERVICES

INVIROTREAT INC.
INDUSTRIAL TREATMENT
PERMITS & O&M
SUNBURST, CA 94134



SOUTH BROADWAY

County of LA Senior

SOUTH FIGUEROA



Note:
 The isopleths noted on this figure are based on a limited data set. Additional data would very likely alter the interpretations depicted. The isopleths are for illustration only to depict one interpretation based on the data set that exists. Actual conditions may vary.

- General Notes**
- - Groundwater Well/ Boring Location
 - - Lorber Geoprobe Boring Location
 - ⊙ - Lorber CPT/ Hydropunch Boring Location
 - ⊕ - Lorber Groundwater Monitoring Well Location
 - ⊙ (stippled) - Former Unpaved Dirt Surface
 - (blue) - Surface Drainage Flow Direction
 - (green) - Lorber's Sewer Flow Direction
 - - - (pink) - Groundwater Concentration Contour In ug/L

Project Details

Name
Sahm Broadway Property

Address
18037 South Broadway
Gardena, CA

Number
8137

Figure Details

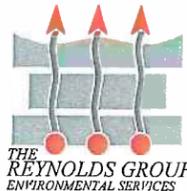
SITE PLAN WITH SHALLOW GROUNDWATER
1,4-DIOXANE CONCENTRATION CONTOUR
(2004-2005)

Figure #
Figure 5

Revise Date
August 2015

0' 100' Scale
Approximate Scale 1" = 100'

Company Information



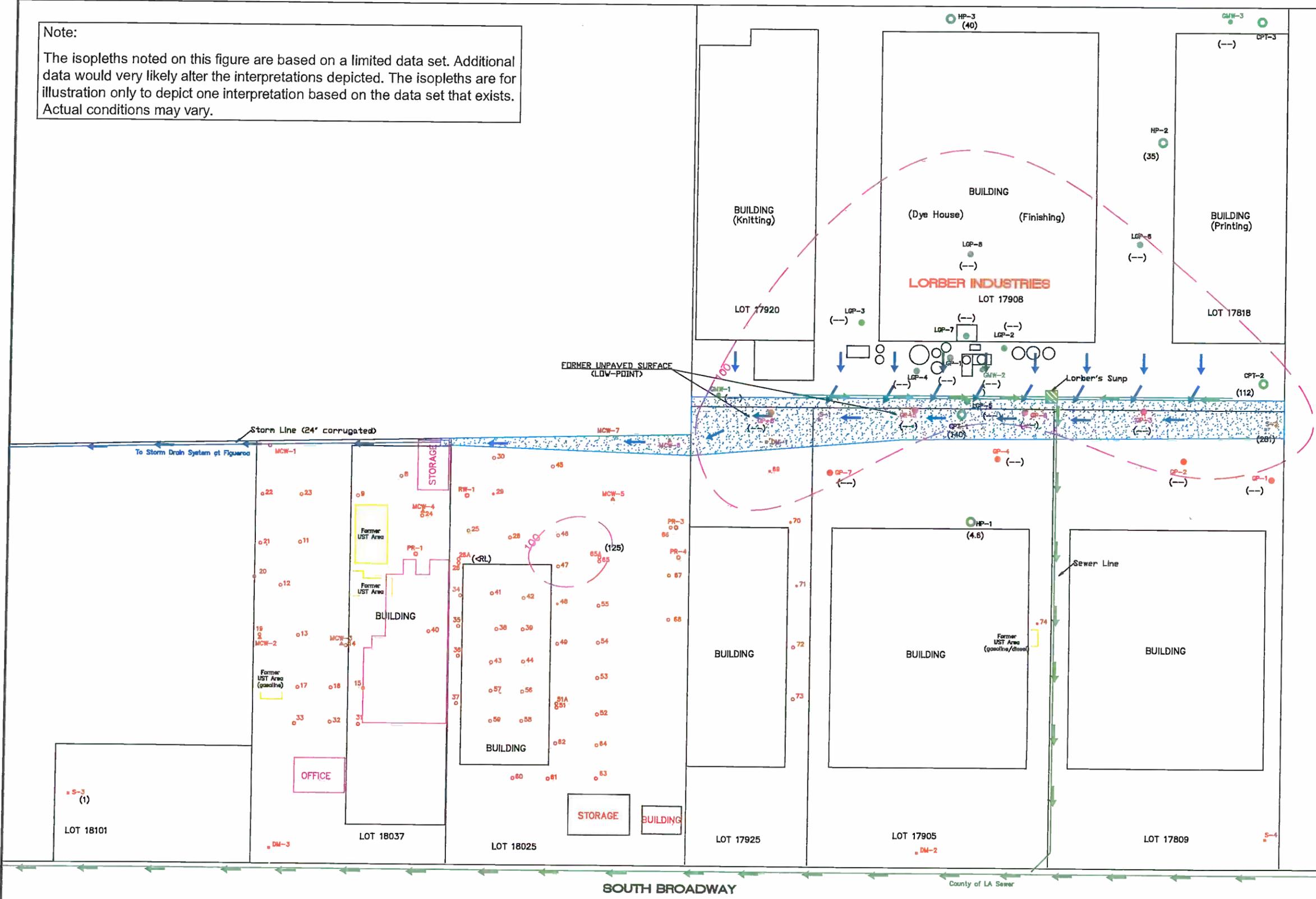


Table 1
Summary of Chemical Analyses Data for Groundwater Samples Collected on March 29, 30 and 31, 2004
Concentrations in Parts per Billion

Boring Number	Depth (ft. BGS)	Vinyl Chloride	Chloro-ethane	1,1-DCE	1,1-DCA	Dichloro-methane	Chloro-form	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1,2-TCA	TCE	PCE
CPT-1	25-30	250	ND	ND	324	ND	ND	2,940	ND	ND	ND	1,530	20,400 ¹
	35-40	64.7	ND	177	222	ND	ND	13.6	ND	17.6	ND	9.1	19.7
	45-50	58	ND	684	278	ND	ND	ND	ND	ND	ND	710	1,120
	60-65	148	ND	420	ND	ND	ND	336	ND	ND	ND	394	1,040
	70-75	57	ND	567	ND	ND	ND	120	ND	ND	ND	215	457
	81-86	ND	ND	1,030	65	ND	ND	35.5	ND	ND	ND	91.5	16
CPT-2	25-30	530	ND	4,980	322	ND	5.8	728	29.3	109	21.8	434	642
	38-43	322	ND	6,160	350	ND	ND	532	15.7	84.7	12.2	632	686
	46-51	28.9	ND	766	22.3	ND	ND	243	9.4	ND	ND	1,280	902
	58-63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.1	10.5
	72-77	13	ND	30.9	ND	ND	ND	44.5	ND	ND	ND	73.4	24.3
	93-98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CPT-3	25-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
	38-43	ND	ND	34.5	ND	ND	ND	ND	ND	ND	ND	625	3,970 ²
	60-65	9.3	ND	378	65.1	ND	ND	11.1	ND	4.9	ND	ND	24.8
	70-75	8	ND	268	49.8	ND	ND	12.5	ND	ND	ND	ND	16
	93-98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HP-1	25-30	9.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.8
	35-40	269	ND	2,290	12.6	ND	ND	ND	12.6	ND	ND	22.3	82.4
	45-50	5.8	ND	154	7.8	ND	ND	33.2	5.3	ND	ND	248	374
	60-65	18.5	ND	43.3	ND	ND	ND	26.5	ND	ND	ND	180	256
	70-75	17	ND	106	ND	ND	ND	235	ND	ND	ND	360	318
	81-86	12.5	ND	29.8	ND	ND	ND	280	ND	ND	ND	ND	ND
HP-2	28-33	15.2	ND	600	64.2	7.3	6.2	520	17.2	ND	ND	1,900	7,880
	38-43	1,690	ND	1,050	147	17.7	7.3	1,180	12.8	14.5	6.8	2,130	9,140
	48-53	65.7	27.1	75	14.2	ND	ND	23.2	ND	ND	ND	375	3,350
	63-68	8.8	21	151	12	ND	ND	6.4	ND	ND	ND	12.5	44.4
	73-78	46.6	21.7	1,410	177	ND	ND	54.8	ND	ND	ND	260	374
	88-93	46	18.7	1,500	201	ND	ND	61.6	ND	ND	ND	213	232
HP-3	25-30	ND	ND	610	497	ND	ND	88.5	ND	ND	ND	ND	541
	35-40	63.5	ND	6,050	1,290	ND	ND	207	ND	ND	ND	119	318
	57-62	6.5	ND	82.2	17.2	ND	ND	8.5	ND	ND	ND	14.4	212
	70-75	14	ND	1,660	223	ND	ND	47.3	ND	15	ND	64.8	63.2
	93-98	ND	ND	165	13.7	ND	ND	ND	ND	ND	ND	ND	ND
MDL		5	5	5	5	5	5	5	5	5	2.5	2.5	
DWMCL		0.5	NA	6	5	5	NA	6	10	0.5	5	5	
Explanation													
ND = not detected at reporting limit (MDL x DL)						TCA = trichloroethane			MDL = method detection level				
BGS = below ground surface						TMB = trimethylbenzene			DWMCL = CCR Title 22 maximum contaminant level for drinking water				
DCE = dichloroethene						DCB = dichlorobenzene			* Cal-EPA DHS drinking water advisory level for 1,2,3-TCP				
DCA = dichloroethane						TCB = trichlorobenzene							
TCE = trichloroethene						TCP = trichloropropane							
PCE = tetrachloroethene													

TABLE 4
 Summary of EPA Method 8260B Chemical Analysis Data for Groundwater
 Concentrations in µg/l or Parts Per Billion

Well or Boring Number	Sample Date	Sample Interval (ft BGS)	Vinyl Chloride	1,1-DCE	1,1-DCA	1,2-DCA	cis-1,2-DCE	1,1,1-TCA	TCE	PCE	Toluene	Xylenes	n-Propyl benzene	1,3,5-TMB	1,2,4-TMB
GMW1	6/1/01	18-35	ND	1,310	8,300	ND	ND	2,500	37	40	1,480	2,560	132	55	228
GMW2	6/1/01	18-35	ND	1,510	936	ND	5,670	ND	730	2,710	ND	ND	ND	ND	ND
GMW3	6/1/01	18-35	ND	ND	ND	ND	ND	ND	4.4	24	ND	ND	ND	ND	ND
LGP-1	6/19/01	27-31	ND	ND	ND	ND	432	ND	283	2,520	ND	ND	ND	ND	ND
		39-43	2,430	1,910	1,460	ND	405	ND	173	485	ND	ND	ND	ND	ND
		46-50	195	2,300	732	ND	255	ND	196	110	ND	ND	ND	ND	ND
LGP-2	6/19/01	27-31	1,520	3,100	ND	ND	565	ND	192	422	ND	ND	ND	ND	ND
		39-43	1,200	1,480	1,040	ND	ND	ND	80	95	ND	ND	ND	ND	ND
		46-50	ND	182	ND	ND	ND	ND	308	115	ND	ND	ND	ND	ND
LGP-3	6/20/01	27-31	960	502	2,010	ND	140	ND	43	93	ND	ND	ND	ND	ND
		39-43	1,870	668	2,310	ND	73	ND	30	25	ND	ND	ND	ND	ND
		46-50	ND	1,760	1,300	ND	182	ND	128	88	ND	ND	ND	ND	ND
LGP-4	6/20/01	27-31	ND	ND	ND	ND	292	ND	243	1,600	ND	ND	ND	ND	ND
		39-43	59	144	726	ND	24	ND	28	34	ND	ND	ND	ND	ND
		46-50	ND	138	220	ND	23	ND	11	16	ND	ND	ND	ND	ND
LGP-5	6/20/01	27-31	675	300	610	ND	1,190	ND	500	4,580	ND	ND	ND	ND	ND
		39-43	125	152	328	ND	30	ND	12	11	ND	ND	ND	ND	ND
		46-50	775	11,700	2,470	ND	240	ND	365	150	ND	ND	ND	ND	ND
LGP-6	6/25/01	30-34	285	3,960	625	ND	1,130	ND	1,050	1,840	ND	ND	ND	ND	ND
		42-46	ND	5,320	915	ND	672	ND	557	496	ND	ND	ND	ND	ND
		50-54	365	8,050	835	ND	440	ND	504	630	ND	ND	ND	ND	ND
LGP-7	6/25/01	30-34	ND	ND	ND	ND	144	ND	596	1,940	ND	ND	ND	ND	ND
		42-46	450	774	736	ND	1,870	ND	581	3,510	ND	ND	ND	ND	ND
		50-54	ND	136	31	ND	91	ND	345	279	ND	ND	ND	ND	ND
LGP-8	6/25/01	30-34	ND	278	253	ND	2,080	ND	1,090	3,150	ND	ND	ND	ND	ND
		42-46	507	3,380	1,840	88.8	1,240	ND	787	5,240	ND	ND	ND	ND	ND
		50-54	ND	298	138	ND	124	ND	193	311	ND	ND	ND	ND	ND
MIDL			5	5	5	5	5	5	2	2	2	5	5	5	5
DWMCL			0.5	6	5	0.5	6	200	5	5	150	1,750	NA	NA	NA
1% SL			26,700	22,500	55,000	85,200	35,000	15,000	11,000	1,500	5,350	1,750	600	NA	NA

ND = not detected at reporting limit (MDL x dilution factor)
 DWMCL = maximum contaminant level for drinking water (CCR Title 22)
 SL = solubility limit for pure chemical (Domenico and Schwartz, 1998)

**GROUNDWATER INVESTIGATION AT NORTHWEST AREA OF ELIXIR'S INDUSTRIES PROPERTY
INVESTIGATION DATA SUMMARY**

TABLE 1

PARAMETER	SAMPLE LOCATION										
	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	S-2		
GENERAL INFORMATION											
Time	10:45	12:00	13:05	14:10	15:10	16:20	17:10	18:30			
Probe Depth (ft)	25	25	25	25	25	25	25	25			
Depth to Water (ft)	17.5	24	19.25	19.5	20.5	20.5	22.5	19.5			
VOLATILE ORGANICS (ug/L)											
1,1-Dichloroethene	720	3,500	2,900	<400	<400	360	130	1,000	2,400		
1,1-Dichloroethane	31	690	680	<400	<400	1,200	530	410	<400		
1,1,1-Trichloroethane	<10	<10	<400	<400	<400	71	<10	<400	<400		
1,1,2-Trichloroethane	<10	51	<400	<400	<400	70	<10	<400	<400		
1,2-Dichloroethane	<10	170	<400	<400	<400	49	<10	<400	<400		
cis-1,2-Dichloroethene	360	150	890	<400	16,000	340	5.8	2,000	760		
trans-1,2-Dichloroethene	<10	<10	<400	<400	<400	<10	<10	<400	<400		
Benzene	<10	<10	<400	<400	<400	2.7	<10	<400	<400		
Ethyl Benzene	<10	<10	<400	<400	<400	<10	<10	<400	<400		
2-Butanone (MEK)	<10	<10	<400	<400	<400	<10	<10	<400	<400		
Methylene Chloride	<10	<10	<400	<400	<400	2.6	<10	<400	<400		
Tetrachloroethene	240	800	1,100	2,600	19,000	61	13	6,900	730		
Toluene	<10	<10	<400	<400	<400	<10	<10	<400	<400		
Trichloroethene	360	130	550	<400	2100	17	6.7	700	590		
Vinyl Chloride	<10	<10	<10	<400	<400	23	31	<400	<400		
Total Xylenes	<10	<10	<400	<400	<400	<10	<10	<400	<400		

ANALYTICAL RESULTS SUMMARY - YEAR 2004-2005
SAHM BROADWAY PROPERTIES
GROUNDWATER REMEDIATION PROJECT

PARAMETER	LOCATION	MW-26 ug/l	MW-65 ug/l	CPT-1 ug/l	HP-1 ug/l	CPT-2 ug/l	CPT-3 ug/l	HP-2 ug/l	HP-3 ug/l	S-2 ug/l	S-3 ug/l
Toluene		127,000	232	3	1,300	4	ND	ND	ND	ND	ND
Benzene		ND	ND	11	27	11	ND	11	ND	12	ND
Ethyl Benzene		2,500	ND	ND	290	ND	ND	ND	ND	ND	ND
Xylene		13,500	7	ND	1,390	6	ND	ND	ND	ND	ND
MEK		ND	183	ND	ND	ND	ND	ND	ND	ND	ND
Acetone		47,000	157	ND	ND	ND	ND	ND	ND	ND	ND
Butanol		3,030,000	29,000	NA	NA	NA	NA	NA	NA	ND	ND
PCE		ND	ND	20,000	4	642	11	7,880	541	325	ND
TCE		ND	ND	1,370	2	434	ND	1,900	ND	876	4
1,1,1-TCA		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis 1,2-DCE		ND	ND	2,200	5	728	ND	520	89	923	ND
1,1-DCE		ND	ND	107	5	4,980	ND	600	610	1,110	7
1,1-DCA		405	ND	188	40	322	ND	64	497	66	2
VC		ND	ND	116	ND	530	ND	15	ND	281	1
1,4-Dioxane		ND	125	140	5	112	ND	35	40	281	1

2. December 18, 1984 "Preliminary Site Evaluation" by Geo-Sec.
 - a. "Results of drill hole borings on December 14, 1984 indicate presence of a zone of contamination around all six initial test hole locations."
 - b. "Holes #1, 2, 3, 4 were found to be located over a previous dump site type environment containing concrete and asphalt. This material was found 1' to 12' below surface."
3. February 4, 1985 "Interim Site Evaluation" by Geo-Sec
 - a. On January 11, 1985 eight (8) wells were constructed.
 - b. On January 21, 1985 12 wells were constructed.
 - c. Seven (7) wells were drilled in this time period at an unspecified date.
 - d. Reported varying product thickness from 0" to 40+". Reported plume is 240' long and 60' wide. "Appears to be along an old buried channel fill trending NW-SE".
 - e. Reported estimated volume of product as 45,000 to 50,000 gallons, using area-volume calculations and 20% porosity.
 - f. Reported results of sampling at unknown wells:
 - o Composition of solvent fraction of plume:

Toluene	83.0%
Isopropyl Alcohol	15.0%
Ethyl Acetate	0.3%
Xylene	0.2%
 - o Aqueous Phase (directly below plume)

Isopropyl Alcohol	6000.0 ppm
MEK	3600.0 ppm
1-butanol	3000.0 ppm
Toluene	250.0 ppm
2-butanol	150.0 ppm
Acetone	140.0 ppm
4. March 11, 1985 "Monthly Updated Report" by Geo-Sec.
 - a. Water samples taken from observation wells number 22, 29, 30, 31 and 33. The samples were analyzed and the results were reported as tabulated:

TABLE 3
Summary of EPA Method 8260B Chemical Analysis Data for Soil
Concentrations in µg/kg or Parts Per Billion

Boring Number	Sampling Date	Depth (ft. BGS)	Vinyl Chloride	1,1-DCE	1,1-DCA	cis-1,2-DCE	TCE	PCE	2-Chloro-toluene	MTBE
LGP-1	6/19/01	5	ND	ND	ND	ND	14	26	ND	ND
		10	ND	ND	ND	ND	ND	57	ND	ND
		15	ND	ND	ND	ND	9.2	110	ND	11
		20	ND	ND	11	27	540	ND	ND	ND
LGP-2	6/19/01	5	ND	ND	9	ND	6	93	ND	ND
		10	ND	ND	ND	12	22.3	292	ND	ND
		15	ND	ND	27.4	6	ND	ND	ND	ND
		20	23	53	184	37	ND	ND	ND	ND
LGP-3	6/19/01	5	ND	ND	ND	ND	ND	ND	ND	ND
		10	ND	ND	ND	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	ND	ND	ND	ND
LGP-4	6/20/01	10	ND	ND	ND	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	ND	ND	ND	ND
LGP-5	6/20/01	5	19	6	92	15	48	ND	6	ND
		10	ND	ND	15	ND	ND	ND	ND	ND
		15	15	ND	200	23	100	16	16	ND
		20	30	ND	900	104	568	101	101	ND
LGP-6	6/20/01	10	ND	ND	5.6	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	62	ND	ND	ND
LGP-7	6/25/01	5	ND	ND	ND	ND	ND	ND	ND	ND
		10	ND	ND	ND	14	62	ND	ND	ND
		15	ND	ND	ND	10	132	60	ND	ND
		20	ND	ND	ND	9	35	93	ND	ND
LGP-8	6/25/01	5	ND	ND	ND	ND	ND	ND	ND	ND
		10	ND	ND	ND	12	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND	ND	ND	ND
		20	ND	ND	ND	19.5	248	2	5	2
MDL			5	5	5	2	2	2	5	2
EPA Reg. IX PRG			35	80	1.7x10 ⁶	7,000	17,000	17,000	NA	NA

ND = not detected at reporting limit (MDL x dilution factor)

MDL = method detection level

PRG = US EPA Region IX Preliminary Remediation Goal for Soil at Industrial Sites

EXHIBIT

14



FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 5-14-1999]

TABLE OF STANDARDS
VOC LIMITS

Grams of VOC Per Liter of Coating,
 Less Water And Less Exempt Compounds

COATING	Limit*	Effective 1/1/1998	Effective 1/1/1999	Effective 5/14/99	Effective 7/1/2001	Effective 7/1/2002	Effective 1/1/2005	Effective 7/1/2006	Effective 7/1/2008
Bond Breakers	350								
Chemical Storage Tank Coatings	420							100	
Clear Wood Finishes									
Varnish	350								
Sanding Sealers	350								
Lacquer	680	550							
Concrete-Curing Compounds	350						275		
Dry-Fog Coatings	400								
Essential Public Service Coating	420					340		100	
Fire-proofing Exterior Coatings	450		350						
Fire-Retardant Coatings									
Clear	650								
Pigmented	350								
Flats	250				100				50
Floor Coatings	420					100		50	
Graphic Arts (Sign) Coatings	500								
High Temperature Industrial Maintenance Coatings						550		420	
Industrial Maintenance Coatings	420					250		100	
Japans/Faux Finishing Coatings	700		350						
Magnesite Cement Coatings	600		450						
Mastic Coatings	300								
Metallic Pigmented Coatings	500								
Multi-Color Coatings	420	250							
Non-Flat Coatings	250								
Pigmented Lacquer	680	550				150		50	
Pre-Treatment Wash Primers	780						275		
Primers, Sealers, and Undercoaters	350					200		100	
Quick-Dry Enamels	400					250		50	
Quick-Dry Primers, Sealers, and Undercoaters	350**					200		100	
Recycled Coatings				250		250		100	



FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 5-14-1999]

Roof Coatings	300			250				
Bituminous Roof Coatings	300					250		
Rust Preventative Coatings	420			400				100
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350							100
Stains	350					250		
Swimming Pool Coatings								
Repair	650							
Other	340							
Traffic Coatings	250	150						
Waterproofing Sealers								
Wood	400					250		
Concrete/Masonry	400							
Wood Preservatives								
Below-Ground	350							
Other	350							

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

** The specified limit applies unless the manufacturer submits a report pursuant to Rule 1113(g)(2).

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120



FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1130.1 12-13-1996]

Except as otherwise provided in Rule 1130.1

(1) **VOC Content of Screen Printing Materials**

The operator shall not apply to any substrate any screen printing material, excluding extreme performance screen printing materials, which contains, as applied, a total amount of VOC in excess of the limits specified in subparagraphs (1)(A), (1)(B), or (1)(C). The applicable VOC limit for a screen printing operation shall be determined by first looking for the product in subparagraph (1)(A). If the product is not listed in subparagraph (1)(A), look for the product's substrate in subparagraph (1)(B). If the substrate is not listed in subparagraph (1)(B), look for the applicable limit in subparagraph (1)(C).

In lieu of meeting the requirements in subparagraph (1)(C), the operator may comply with the requirements in paragraph (2) if the screen printing material qualifies for an extreme performance classification under subdivision (e) of Rule 1130.1.

(A) For screen printing coatings and inks used in the production of the following products:

<u>PRODUCT</u>	<u>VOC LIMIT</u> grams per Liter of Coating (or Ink), Less water and Less Exempt Compounds	
	On and After December 13, 1996	
	<u>g/L</u>	<u>lbs/gal</u>
Chlorine Indicator	500	4.2
Containers	800	6.7
Electronic Circuit	850	7.1
Mechanically-Formed Products	800	6.7
Overlays	800	6.7
Polyethylene Products	800	6.7
Stained Glass Overlay	800	6.7
Sterilization Indicator	600	5.0
Sub-Printed Products	800	6.7
Water Slide Decals:		



FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1130.1 12-13-1996]

<u>PRODUCT</u>	<u>VOC LIMIT</u> grams per Liter of Coating (or Ink), Less water and Less Exempt Compounds	
	Opaque Inks	800
Clear Inks	800	6.7
Ceramic Decal Inks	800	6.7

- (B) For screen printing coatings and inks not regulated by subparagraph (1)(A) and which are applied to the following specified substrates:

<u>SUBSTRATE</u>	<u>VOC LIMIT</u> grams per Liter of Coating (or Ink), Less water and Less Exempt Compounds	
	On and After December 13, 1996	
	<u>g/L</u>	<u>lbs/gal</u>
Ceramic	800	6.7
Fiberglass	600	5.0
Glass or Metal	600	5.0
Man-Made Textile	800	6.7
Unsealed Aluminum	800	6.7

If a substrate is regulated under more than one substrate category listed in subparagraph (1)(B), the category with the highest VOC limit shall apply.

- (C) For screen printing materials not regulated by the provisions in subparagraph (1)(A) or (1)(B), which have the following material classifications:

<u>SCREEN PRINTING MATERIAL</u>	<u>VOC LIMIT</u> grams per Liter of Coating (or Ink or Adhesive), Less water and Less Exempt Compounds
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FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1130.1 12-13-1996]

	On and After December 13, 1996	
	<u>g/L</u>	<u>lbs/gal</u>
Adhesive	400	3.3
Coating	400	3.3
Fine Detail Loose-leaf Binder Ink	745	6.2
Fluorescent Ink	540	4.5
High-VOC Serigraph Ink	800	6.7
Loose-leaf Binder Metallic Ink	745	6.2
Metallic Ink	400	3.3
Printing Ink	400	3.3
Resists	600	5.0
Scratch-Off Ink	800	6.7
Water-Slide Decal Adhesive	800	6.7

If a screen printing material is regulated under more than one screen printing material category listed in subparagraph (1)(C), the category with the highest VOC limit shall apply.

(2) **VOC Content of Extreme Performance Screen Printing Materials**

The operator shall not apply any extreme performance screen printing material in excess of the limits specified below:

	VOC LIMIT Grams of VOC per Liter of Extreme Performance Screen Printing Material, Less Water and Less <u>Exempt Compounds</u>	
	<u>g/L</u>	<u>lbs/gal</u>
On and after July 9, 1993	800	6.7
On and after January 1, 2003	400	3.3

(3) **Usage of High-VOC Serigraph Inks**

The total usage of high-VOC serigraph inks, as defined in paragraph (b)(23) of Rule 1130.1, shall not exceed 10 percent, (by volume), of the total usage of screen



FACILITY PERMIT TO OPERATE
LORBER INDUSTRIES OF CALIFORNIA

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 6-13-1997]

Except as otherwise provided in Rule 1171, the operator shall not use a solvent to perform solvent cleaning unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS		Effective 1/1/1999	
	VOC g/l (lb/gal)	VOC Composite Partial Pressure mm Hg @ 20°C (68°F)	VOC g/l (lb/gal)	VOC Composite Partial Pressure mm Hg @ 20°C (68°F)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application				
(i) General	70 (0.58)			
(ii) Electronic Components or Medical Devices	900 (7.5)	33		
(B) Repair and Maintenance Cleaning				
(i) General	900 (7.5)	20	50 (0.42)	
(ii) Electrical Apparatus Components	900 (7.5)	20		
(iii) Medical Devices	900 (7.5)	33		
(C) Cleaning of Coatings, or Adhesives Application Equipment	950 (7.9)	35		
(D) Cleaning of Ink Application Equipment				
(i) General	100 (0.83)	3		
(ii) Flexographic or Gravure Printing	100 (0.83)	3		
(iii) Lithographic or Letter Press Printing	900 (7.5)	25		10
(iv) Screen Printing	1070 (8.9)	5		
(v) Ultraviolet Inks (except screen printing)	800 (6.7)	33		
(vi) Specialty Flexographic Printing	810 (6.8)	21		

EXHIBIT

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Emissions

Facility ID 14229
 Company Name LORBER INDUSTRIES OF CALIFORNIA
 Address 17908 S FIGUEROA ST
 GARDENA, CA 90248

Select AER Year:

Criteria Pollutants (Tons per Year):

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	6.945
NOX	Nitrogen Oxides	5.890
ROG	Reactive Organic Gases	0.594
SOX	Sulfur Oxides	0.062
TSP	Total Suspended Particulates	0.722

Toxic Pollutants (Pounds per Year):

Pollutant ID	Pollutant Description	Annual Emissions
75070	Acetaldehyde	0.819
107028	Acrolein	0.514
71432	Benzene	1.525
100414	ETHYL BENZENE	1.811
50000	Formaldehyde	3.241
110543	HEXANE	1.201
91203	Naphthalene	0.057
11151	PAHs, total, with components not reported	0.019
108883	Toluene	6.978
1330207	Xylenes	5.185

Note - Data for 2007 represents the six-month transitional period, July through December 2007, when the rules requiring annual emissions reporting changed from a fiscal year to a calendar year basis.



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Emissions

Facility ID 14229
Company Name LORBER INDUSTRIES OF CALIFORNIA
Address 17908 S FIGUEROA ST
 GARDENA, CA 90248

Select AER Year:

Criteria Pollutants (Tons per Year):

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	4.345
NOX	Nitrogen Oxides	6.310
ROG	Reactive Organic Gases	0.669
SOX	Sulfur Oxides	0.078
TSP	Total Suspended Particulates	0.747

Toxic Pollutants (Pounds per Year):

Pollutant ID	Pollutant Description	Annual Emissions
7664417	Ammonia	3579.480
71432	Benzene	1.590
50000	Formaldehyde	3.38
91203	Naphthalene	0.059
1151	PAHs, total, with components not reported	0.019

Note - Data for 2007 represents the six-month transitional period, July through December 2007, when the rules requiring annual emissions reporting changed from a fiscal year to a calendar year basis.



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Facility ID 14229
 Company Name LORBER INDUSTRIES OF CALIFORNIA
 Address 17908 S FIGUEROA ST
 GARDENA, CA 90248

Select AER Year: 2003

Criteria Pollutants (Tons per Year):

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	2.177
NOX	Nitrogen Oxides	4.420
ROG	Reactive Organic Gases	0.572
SOX	Sulfur Oxides	0.047
TSP	Total Suspended Particulates	0.601

Toxic Pollutants (Pounds per Year):

Pollutant ID	Pollutant Description	Annual Emissions
7664417	Ammonia	516.892
71432	Benzene	1.005
50000	Formaldehyde	2.134
91203	Naphthalene	0.047
7440020	Nickel	0.000
1151	PAHs, total, with components not reported	0.015

Note - Data for 2007 represents the six-month transitional period, July through December 2007, when the rules requiring annual emissions reporting changed from a fiscal year to a calendar year basis.



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Facility ID 14229
 Company Name LORBER INDUSTRIES OF CALIFORNIA
 Address 17908 S FIGUEROA ST
 GARDENA, CA 90248

Select AER Year:

Criteria Pollutants (Tons per Year):

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	2.816
NOX	Nitrogen Oxides	5.230
ROG	Reactive Organic Gases	5.157
SOX	Sulfur Oxides	0.050
TSP	Total Suspended Particulates	0.610

Toxic Pollutants (Pounds per Year):

Pollutant ID	Pollutant Description	Annual Emissions
7664417	Ammonia	679.753
71432	Benzene	1.058
18540299	Chromium (VI)	0.006
50000	Formaldehyde	53.366
91203	Naphthalene	0.050
7440020	Nickel	0.000
1151	PAHs, total, with components not reported	0.016

Note - Data for 2007 represents the six-month transitional period, July through December 2007, when the rules requiring annual emissions reporting changed from a fiscal year to a calendar year basis.

EXHIBIT

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December 31, 2014

*Via Hand Delivery and
E-Mail (Rasmussen.Paula@waterboards.ca.gov)*

Ms. Paula Rasmussen
Assistant Executive Officer
Regional Water Quality Control Board, Los Angeles Region
320 W. 4th St., Suite 200
Los Angeles, CA 90017

**Re: Comments Regarding Draft Cleanup and Abatement Order,
Number R4-2014-XXXX
Lorber Industries/TGA Carson Properties - 17908 S. Figueroa, Carson,
California, 90248 (Site Cleanup No. 1056; Site ID No. 2040022)**

Dear Ms. Rasmussen:

We represent TGA Carson Properties, LLC ("TGA") in connection with the above-referenced proposed draft cleanup and abatement order. This letter provides TGA's comments on the proposed Draft Cleanup and Abatement Order issued to Lorber Industries, TGA and TGA Carson Properties II, LLC, regarding the real property commonly known as 17908 S. Figueroa, Carson, California (Site Cleanup No. 1056; Site ID No. 2040022) ("Lorber Draft CAO"). It also includes TGA's response to certain comments submitted by Sahn Broadway Property, LLC, in connection with the Lorber Draft CAO submitted to the Regional Water Quality Control Board, Los Angeles Region ("RWQCB") by letter dated November 6, 2014.

We appreciate the extensions of time to respond to the Lorber Draft CAO granted to Mrs. Anita Lorber on behalf of TGA. As you know, this matter has not been active for many years. Moreover, Lorber Industries petitioned for and received a discharge in bankruptcy. Lorber Industries has not operated for more than 8 years. Mr. Arnold Lorber also passed away several years ago. As a result, it has been necessary to search through archival records to prepare this response and these comments. The search for information and documents continues. Accordingly, we ask the RWQCB to consider additional relevant information should it be located and provided to the RWQCB.

The California Water Code authorizes the RWQCB to name actual "dischargers" in cleanup and abatement orders. Further, the decisions of the State Water Resources Control Board typically hold actual dischargers primarily liable for the contamination caused by their discharges. *See* State Water Board Order No. WQ 86-18 at 3; *see also* State Board Order Nos. 87-5 (mine operator and landowner named in waste discharge requirements; operator primarily responsible); 87-6 (landowner and manufacturers of semiconductors named in site cleanup requirements; manufacturers primarily responsible); 89-1 (landowners and operator of crop dusting business named in cleanup and abatement order; operator primarily responsible); 89-8 (lessee included in cleanup and abatement order together with the parties who caused the release of pollutants; lessee considered secondarily liable); 92-13 (landowners held secondarily liable in cleanup and abatement order; operators considered primarily liable).

In this subject case, with respect to groundwater contamination caused by perchloroethylene ("PCE") and its daughter products, the data collected to date is inconclusive as to whether the former Lorber Industries ("Lorber") discharged or released PCE that impacted the groundwater at levels in excess of the 5 ug/L maximum contaminant level ("MCL"). Evidence indicates that Lorber operated a dry cleaning machine and associated above ground storage tank ("AST") in connection with its textile dyeing operations at the real property commonly known as 17908 S. Figueroa, and there may have been a release of PCE from the dry cleaning equipment. However, the analytical data indicate an upgradient PCE source on the real properties known as the Elixir Properties¹ which has not been investigated and has impacted groundwater beneath the Lorber Site² at levels above the PCE MCL. This Elixir Properties PCE source caused groundwater contamination that migrated beneath the Lorber Site. The relevant analytical data are discussed in more detail below.

As the RWQCB is aware, Lorber is not in a position to undertake the work directed in the Lorber Draft CAO. Lorber filed for and received an order completing its bankruptcy. The final decree closing the bankruptcy was issued by the U.S. Bankruptcy Court for the Central District of California on November 2, 2012. There are no remaining Lorber representatives or Lorber assets that can respond to or otherwise implement the Lorber Draft CAO.

Generally, if the primarily responsible party for environmental remedial work is unable to perform the work or fails to perform the work, the RWQCB will hold the landowner responsible. In the instant case, TGA is the current owner of the real properties

¹ As used herein, the term "Elixir Properties" shall refer to the real properties commonly known as 17809, 17905, 17925, 18025 and 18037 S. Broadway, Gardena, California.

² As used herein, the term "Lorber Site" shall refer to the real properties commonly known as 17818, 17908, and 17920 S. Figueroa, Carson, California.

Ms. Paula Rasmussen
December 31, 2014
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commonly known as 17908 and 17920 S. Figueroa, Carson, California. Accordingly, although TGA took title to the subject property after the dry cleaning machine's operation was discontinued, we recognize that it is RWQCB's policy to hold the current landowner responsible if the alleged discharger is unable to complete the work. We note, however, that TGA's legal name is not TGA Carson Properties I, LLC as the Lorber Draft CAO indicates, but is TGA Carson Properties, LLC. Accordingly, we request that the Lorber Draft CAO be revised to reflect the proper legal name of the current landowner.

While the RWQCB may choose to name Lorber in the Lorber Draft CAO because it formerly conducted operations on the Lorber Site, the party performing the actions under a Lorber cleanup and abatement order for alleged waste discharges originating on the Lorber Site will be the current owner, TGA. We have modified the Lorber Draft CAO to reflect that TGA is not a "discharger" by referring to the parties as "Responsible Parties" instead of dischargers. There is no evidence whatsoever that TGA ever discharged, caused or permitted a discharge of any wastes at the Lorber Site.

TGA Carson Properties II, LLC, should not be named as a responsible party or a discharger in the Lorber Draft CAO. TGA Carson Properties II, LLC, is the owner of the real property commonly known as 17818 S. Figueroa Street, Carson, California. We recognize that 17818 S. Figueroa St. is included in the definition of "Site" in the Lorber Draft CAO.³ However, TGA Carson Properties II, LLC, never conducted any industrial operations on any of the properties that comprise the Lorber Site. Further, there is no evidence whatsoever to suggest that TGA Carson Properties II, LLC, was a discharger or contributed to any discharges within the meaning of Section 13304(a) of the Water Code. TGA Carson Properties II, LLC, should not be held to the Dischargers' liability as stated in Paragraph 19 of the Lorber Draft CAO. TGA Carson Properties II, LLC, also is not the owner of the real property on which the alleged release of PCE occurred. There is no data that indicates that there was any discharge of waste on the 17818 S. Figueroa property. It is not consistent with RWQCB policy or the Water Code to name the landowner of real property to which contaminants may have migrated. Accordingly, we respectfully request that TGA Carson Properties II, LLC, be removed as a responsible party from the Lorber Draft CAO. We note that documentation regarding the ownership of the subject parcels was previously provided to the RWQCB. However, should you desire such documentation, please let us know and we will provide it.

Similarly, we believe that the 17818 S. Figueroa property should be excluded from the definition of "Site" in the Lorber Draft CAO. There is no evidence to suggest that any release or discharge occurred on the 17818 S. Figueroa property. TGA Carson Properties II, LLC, is prepared to provide reasonable access for purposes of completing any required

³ In the Lorber Draft CAO, the Site is identified as the real properties commonly known as 17818, 17908, and 17920 S. Figueroa, Carson, California.

investigations. Therefore, this property should not be included in the definition of "Site" in the Lorber Draft CAO.

As discussed in the Lorber Draft CAO, the Lorber Site is located downgradient of the Elixir Properties, which are currently owned by Sahn Broadway Property, LLC ("Sahn"). The Elixir Properties were owned by Elixir Industries ("Elixir") since the 1950s. Elixir conducted manufacturing and fabrication operations on the various properties. The property commonly known as 18037 S. Broadway was a paint plant, which produced paint material and epoxy resins until the late 1980s. The paint plant used raw products stored in underground storage tanks ("USTs"). Seventeen (17) USTs were located to the west of the former building at the 18037 S. Broadway property. It is our understanding that in December 2004, the ownership of the Elixir Properties and the responsibility for the groundwater clean-up were transferred to Sahn.

The Elixir Properties are heavily contaminated with a number of constituents as a result of, among other things, leaks from the USTs and distribution pipes. The initial major Elixir contaminants identified included aromatic solvents, ketones and alcohols. Significant amounts of free product were detected floating on top of shallow groundwater. Elixir operated a pump and treat groundwater system from 2002 through 2008. It disconnected and removed the groundwater treatment system in May 2008 without RWQCB approval or consent. Also without RWQCB approval or consent, Elixir ceased groundwater monitoring activities after a May 30, 2008 monitoring event. While Elixir argues that it has investigated and remediated all of the contamination it caused, it is clear that Elixir has not done so. Moreover, contamination from the Elixir Properties has migrated and most likely continues to migrate to the Lorber Site as discussed in more detail herein.

Although the Lorber Draft CAO recognizes that the Elixir Properties have contributed to the presence of contaminants beneath the Lorber Site, and the RWQCB is separately issuing Sahn and Elixir a CAO for the Elixir Properties, the Lorber Draft CAO does not name Sahn or Elixir as responsible parties for the Elixir Properties releases onto the Lorber Site. The Lorber Draft CAO identifies a number of contaminants as being present on the Lorber Site for which no evidence exists to support a finding that Lorber discharged or released such chemicals. However, significant evidence exists that such chemicals were stored and used by Elixir. For example, the Lorber Draft CAO ¶ 8(b) finds that benzene, toluene and total xylenes are present at levels in excess of the SWRCB Division of Drinking Water MCLs, yet these chemicals are not associated with Lorber. Instead, they are contaminants which Sahn and Elixir admit are Elixir's "signature" contaminants, namely aromatic hydrocarbons (e.g., benzene, toluene and total xylenes). 1,1,1-trichloroethane ("TCA"), TCA's degradation products and 1,4-dioxane are also contaminants present in the groundwater beneath the Lorber Site which are not associated with Lorber's operations but

are associated directly with Elixir's former operations. No evidence exists that Lorber used TCA; however, Elixir used and stored TCA at several locations on the Elixir Properties.⁴

While the draft CAO to Sahn and Elixir directs them to fully assess and characterize the vertical and lateral extent of wastes onsite and offsite, it does not make it clear that Sahn and Elixir are responsible for investigating fully the extent of the Sahn/Elixir soil and groundwater contaminant impacts to the Lorber Site. Moreover, the Lorber Draft CAO specifically and incorrectly requires Lorber and TGA to investigate contaminants which are the responsibility of Sahn and Elixir. No evidence exists to support a finding that Lorber discharged benzene, toluene, ethylbenzene, trichloroethylene ("TCE"), TCA or 1,4-dioxane. However, these contaminants are found on the Lorber Site., as is 1,1-dichloroethane ("DCA"), which is a degradation product of TCA. The Lorber Draft CAO requires Lorber and TGA to "[f]ully assess and characterize and completely delineate the vertical and lateral extent of wastes onsite and offsite in the soil matrix, soil vapor, and groundwater. The Assessment will include VOCs and any other waste constituents that were discharged or deposited at the Site." (Lorber Draft CAO, Required Actions, paragraph 1(a).) This requirement must be limited to PCE that originated on the Lorber Site and not include all VOCs present at the site because they are contaminants migrating from the Elixir Properties.

The Water Code makes it clear that dischargers should be responsible for investigating and cleaning up their discharges. The CAO to Sahn and Elixir must direct Sahn and Elixir to investigate the extent of benzene, toluene, ethylbenzene, TCA and its degradation products, including DCE, DCA, and 1,4-dioxane, at a minimum, on the Lorber Site, and the Lorber Draft CAO must not compel Lorber or TGA to do so. Requiring Lorber and/or TGA to investigate groundwater contaminants constituents clearly associated with Elixir's operations is at odds with the Water Code's provisions imposing liability on the discharger of the waste.

By way of example of Sahn/Elixir's TCA liability, TCA was detected in GMW-1, located upgradient of the Lorber Site. Specifically, TCA was detected at up to 26,000 ug/l in

⁴ Elixir/Sahn argue in their comments on the proposed draft CAO issued to them that only the property commonly known as 18037 S. Broadway should be identified as the Elixir Site. They argue that the other properties are not the source of any releases. However, the analytical data do not support such a conclusion. It appears that there is a PCE source on the Elixir Properties in the vicinity of the property commonly known as 17905 S. Broadway. Moreover, operations storing and using TCA were conducted north of the property commonly known as 17925 S. Broadway and in or around the property commonly known as 17905 S. Broadway according to inspection records from the South Coast Air Quality Management District ("SCAQMD"). A UST was also located between the 17905 S. Broadway and 17809 S. Broadway properties.

GMW-1.⁵ Also, historical data from both S-1 and S-2 (which are located at the property line between the Elixir Properties and the Lorber Site) indicated elevated concentrations of TCA, including 8,100 ug/L in S-1 and 1,900 ug/L in S-2.

Moreover, analysis of samples collected across the Lorber Site, at varying depths, indicated the presence of the emergent chemical 1,4-dioxane. There is no evidence that TCA or 1,4-dioxane was ever used at the Lorber Property. 1,4-dioxane is not associated with PCE used as a dry cleaning solvent. However, it is well established that 1,4-dioxane was and is used as a stabilizer in TCA, a chemical known to be stored and used at the Elixir Properties. Records indicate the presence of not only the TCA UST, but also two (2) TCA ASTs at 17925 S. Broadway in 1991 and 1992. In the Lorber Site shallow groundwater, analysis of groundwater samples collected from 25 to 33 feet bgs showed decreasing concentrations of 1,4-dioxane across the Lorber Site, with higher concentrations present in the upgradient locations on the Elixir Properties. Groundwater samples collected between 70 and 78 feet bgs indicate the presence of 1,4-dioxane at 197 ppb and 169 ppb in HP-3 and HP-2, respectively, downgradient of the area on the Elixir Properties where TCA was known to be stored and used.⁶

Further, 1,1-DCA, a degradation product of TCA, was detected in every Geoprobe groundwater sample collected from the Lorber Site, as well as in GMW-1 and GMW-2, in the 2001 sampling.⁷ 1,1-DCA was detected at a maximum concentration of 33,000 ug/L in groundwater at GMW-1 in May, 1991.⁸ Again, TCA was never used on the Lorber Site and 1,1-DCA is not a degradation product of PCE. Based upon the foregoing analytical data, Sahm and Elixir, and not Lorber and TGA, should be responsible for delineating the vertical and lateral extent of TCA, 1,1-DCA, and 1,4-dioxane groundwater contamination.

Elixir maintains that it has completed a comprehensive investigation of contaminants. However, Elixir's investigation and its remedial activities were limited to the shallow

⁵ See Table 1 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

⁶ See Figure 8 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater (Phase 1), Lorber Industries of California*, Aqua Science Engineers, Inc., June 2004; see also Table 1 attached to October 15, 2004 Letter to RWQCB from Aqua Science Engineers, Inc., Regarding Revised Phase 2 Site Assessment Plan for Groundwater Monitoring Well Installation.

⁷ See Table 4 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

⁸ See Table 1 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

groundwater. As Elixir admits in its *Groundwater Remediation Program Status Report and Closure Recommendations* prepared by Invirotreat, Inc., dated January 29, 2007, its data collection was limited to the contamination plume in the shallow water bearing zone. A full investigation of the presence of contaminants in the shallow groundwater, most notably TCA and its degradation products, and 1,4-dioxane, has not been conducted. Compelling evidence shows that the TCA contamination and its breakdown products (1,1-DCE and 1,1-DCA) as well as 1,4-dioxane on the Lorber Site are from the Elixir Properties. There is no evidence whatsoever that the Lorber Site is a source of TCA groundwater contamination, including its breakdown products or 1,4-dioxane.

Elixir also has not completed a comprehensive investigation of the presence of contaminants in the deeper groundwater. Elixir has only collected limited samples from three locations of the deeper groundwater. Two of these locations (DM-3 and DM-2) were located upgradient of the known source areas on the Elixir Properties, so the minor or absence of contaminants is not unexpected. DM-1 was only sampled in a very limited fashion, in 1986 and 1989. Results in 1986 indicates the present of TCA at 290 ug/l, TCE and cis-1,2-DCE at 4 ug/l, DCE at 53 ug/l, and 1,1-DCA at 52 ug/l. The samples were not analyzed for 1,4-dioxane. However, sampling on the Lorber Site clearly indicates the presence of contaminants associated with the Elixir Properties in the deeper groundwater downgradient of the Elixir Properties. Accordingly, Elixir and Sahn must be compelled to investigate the groundwater at the Lorber Site.

Further, Elixir has not investigated the extent of the Elixir aromatic VOCs impacts to the Lorber Site. Analysis of samples from GMW-1 found elevated concentrations of toluene (up to 3,600 ug/l) and xylenes (up to 4,000 ug/l).⁹ Very little sampling has been completed downgradient of GMW-1. Groundwater flow is understood to be to the west-northwest. The investigations conducted by Lorber were cross-gradient to GMW-1. Moreover, in 2004, toluene and xylenes were also detected in HP-1 in the 25 to 30 ft. zone at concentrations of 1,410 ug/L and 1,040 ug/L, respectively.¹⁰ While HP-1 is located on the Elixir Properties, it is outside the groundwater remediation zone and documents that Elixir and Sahn have not fully investigated even aromatic hydrocarbons. Therefore, Elixir and Sahn cannot reasonably assert that the aromatic VOCs have not migrated onto the Lorber Site.

Finally, the analytical data do not support the conclusion that a release from the former Lorber operations impacted groundwater in excess of PCE's MCL of 5 ug/L.

⁹ See Table 1 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

¹⁰ See Table 1 attached to October 15, 2004 Letter to RWQCB from Aqua Science Engineers, Inc., Regarding Revised Phase 2 Site Assessment Plan for Groundwater Monitoring Well Installation.

Additionally, the analytical data do not support the conclusion that the former Elixir operations did not impact groundwater in excess of PCE's MCL of 5 ug/L.

First, the maximum PCE concentration identified in the Lorber Draft CAO as detected on the Lorber Site of 20,400 ug/L in CPT-1 (see Paragraph 6(c) of the Lorber Draft CAO) was **not** from a sampling location on the Lorber Site, but on the Elixir Properties. CPT-1 is located near the property boundary, but is located on the Elixir Properties.¹¹ We also note that CPT-1 is upgradient from the location of the former dry cleaning equipment on the Lorber Site.

Second, the soil samples collected in March 2004 from the location of the former dry cleaning equipment inside the building on the Lorber Site, LGP-7, were non-detect for PCE at 5 feet bgs, 62 ppb at 10 feet bgs, 132 ppb at 15 feet bgs and 60 ppb at 20 feet bgs.¹² Analysis of groundwater samples collected at this same location (LGP-7) indicated the presence of PCE at 1,940 ug/L at 30 to 34 feet bgs. However, samples collected at GMW-2 detected PCE at 4,100 ug/L (7/94) and at 2,710 ug/L (6/01).¹³ GMW-2 is located upgradient of the location of the former dry cleaning equipment, and upgradient of LGP-7. Yet, groundwater samples collected at the same time in June, 2001, indicated a higher concentration of PCE in GMW-2 as compared to LGP-7 (2,710 ug/L PCE in GMW-2 compared to 1,940 ug/L PCE at LGP-7).

Further, GMW-2 is located downgradient of sampling point LGP-9 located on the Elixir Properties. LGP-9 is located upgradient of and approximately 60 feet east of the location of the former dry cleaning equipment on the Lorber Site. Soil samples collected at LGP-9 showed PCE at 1,770 ppb at 5 feet bgs, 190 ppb at 10 feet bgs, 21.1 ppb at 15 feet bgs and 468 ppb at 20 feet bgs.¹⁴ Soil samples collected at LGP-5, also located upgradient of the location of the former dry cleaning equipment, upgradient of GMW-2, and downgradient of LGP-9, showed PCE at 48 ppb, ND, 100 ppb, and 568 ppb at 5, 10, 15 and 20 feet bgs,

¹¹ See Figures 2 and 4 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater (Phase 1), Lorber Industries of California*, Aqua Science Engineers, Inc., June 2004.

¹² See Table 3 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

¹³ See Table 4 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater at Lorber Industries of California*, Aqua Science Engineers, Inc., January 2, 2002.

¹⁴ See Table 1 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater (Phase 1), Lorber Industries of California*, Aqua Science Engineers, Inc., June 2004.

respectively.¹⁵ Moreover, as previously discussed, groundwater samples collected at 25 to 30 feet bgs from CPT-1 (located on the Elixir Properties, upgradient of LGP-5 and downgradient of LGP-9) in 2004 indicated PCE in the groundwater at 20,400 ug/L, TCE at 1,530 ug/L, cis-1,2-DCE at 2,940 ug/L, 1,1-DCA at 324 ug/L, and 1,4-dioxane at 140 ug/L.¹⁶ The PCE concentration of 20,400 ug/L on the Elixir Properties is the highest PCE detected, and the sampling point is located upgradient of the location of the former dry cleaning equipment on the Lorber Site.

For convenience, the analytical data discussed previously herein is summarized in the following table. Additionally, we have attached two figures from reports previously submitted to the RWQCB depicting the various sampling locations discussed, the general site features for the Lorber Site and the Elixir Properties, and the Elixir TCA use areas as Exhibits A and B hereto.

Sampling Location	PCE Concentration (Soil)	PCE Concentration (Groundwater)	Sample Collection Date	Location Relative to Former Dry Cleaning Equipment
LGP-7	ND (5 ft bgs) 62 ppb (10 ft bgs) 132 ppb (15 ft bgs) 60 ppb (20 ft bgs)	1,940 ug/L	June, 2001	At Location/Lorber Site
GMW-2		4,100 ug/L	July, 1994	Upgradient/Lorber Site
GMW-2		2,710 ug/L	June, 2001	Upgradient/Lorber Site
LGP-5	48 ppb (5 ft bgs) ND ppb (10 ft bgs) 100 ppb (15 ft bgs) 568 ppb (20 ft bgs)	4,580 ug/L	June, 2001	Upgradient/Elixir Properties
LGP-9	1,770 ppb (5 ft bgs) 190 ppb (10 ft bgs) 21.1 ppb (15 ft bgs) 468 ppb (20 ft bgs)		March, 2004	Upgradient/Elixir Properties
CPT-1		20,400 ug/L	March, 2004	Upgradient/Elixir Properties

¹⁵ See Table 2 in *Project Report, Subsurface Environmental Investigation of Soil and Groundwater (Phase 1), Lorber Industries of California*, Aqua Science Engineers, Inc., June 2004.

¹⁶ See Table 1 attached to October 15, 2004 Letter to RWQCB from Aqua Science Engineers, Inc., Regarding Revised Phase 2 Site Assessment Plan for Groundwater Monitoring Well Installation.

The foregoing data demonstrate a PCE source on the Elixir Properties that has not been investigated that is impacting the Lorber Site soil and groundwater. The higher detections of PCE present in soil and groundwater upgradient of the location of the former dry cleaning equipment also provides substantial evidence that the PCE groundwater impacts beneath the Lorber Site are a result of the former Elixir operations and not the result of the former dry cleaning equipment.

Based upon this information, the Lorber Draft CAO improperly requires TGA and Lorber to investigate contamination for which they are not responsible. We request that the RWQCB modify the draft CAO issued to Sahn and Elixir to require them to investigate the Lorber Site, and modify the Lorber Draft CAO to limit TGA and Lorber to investigating that contamination for which evidence indicates Lorber may be responsible only.

We have also redlined Lorber Draft CAO consistent with these comments. A redlined version is attached as Exhibit C hereto, with deletions shown by striking out the text and proposed insertions shown by underline.

Additionally, we address certain comments to the Lorber Draft CAO submitted by Sahn. The comments made in Sahn's November 6, 2014 cover letter in Item Numbers 1 and 2 regarding the conclusions to be drawn from the historical analytical data are addressed above. Additionally, in Item Number 2, Elixir comments that analysis of samples collected from the deeper water zones did not detect the presence of any of Elixir's historic "signature" chemicals are erroneous. As discussed previously, analysis of samples collected from the deeper water bearing zones indicated the presence of 1,4-dioxane as well as 1,1-DCA, a degradation product of TCA.

Elixir's comment suggesting that Lorber must have used products containing the contaminants found in soil and groundwater based upon certain MSDSs in the RWQCB file for Lorber is not supported by any other evidence. It is unclear whether these MSDSs are for products actually used at the Lorber Site or not. More importantly, there is no evidence that any chemicals or products other than PCE were ever released to the soil at the Lorber Site.

With respect Elixir's comment in Item Number 4, all information indicates that Lorber ceased using the dry cleaning equipment in 1978. At that time, it was taken out of service. The equipment may not have been removed from the Lorber Site until later. However, the equipment and associated tank were removed and Lorber simply failed to notify the SCAQMD. In any event, PCE and the dry cleaning equipment were not used after 1978. Accordingly, we object to Elixir's proposed changes to the Lorber Draft CAO, Site History, Paragraph 4. Specifically, we object to the proposed modification indicating that the dry cleaning equipment was operated until 1987. We also object to the erroneous summary of the 1987 letter to the SCAQMD, which merely indicates that the dry cleaning equipment had been removed prior to the letter. We also object to the proposed revision to the size of the storage tank associated with the dry cleaning equipment as our information indicates that

Ms. Paula Rasmussen
December 31, 2014
Page 11

the tank was smaller than 500 gallons. We also object to the proposed last two sentences which are again an erroneous summary of the information in the SCAQMD's files and unnecessarily argumentative for a CAO.

With respect to Elixir's proposed revisions to the Lorber Draft CAO, Site History, Paragraph 5, we object to the proposed revision to the capacity of the associated storage tank as our information indicates that it was significantly smaller than 500 gallons.

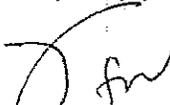
With respect to Elixir's proposed revisions to paragraph 6(c) of the Evidence of Waste Discharges and Basis for Order, we object to the addition of the last sentence to the first paragraph, which is incorrect as previously discussed herein. We also object to the inclusion of the proposed last sentence of the second paragraph, which is merely Elixir's argument and is not supported by the analytical data.

With respect to Elixir's proposed revisions to paragraph 7 of the same section, as we previously discussed, the evidence indicates that the associated PCE storage tank was smaller than 500 gallons. Further, as previously discussed, the dry cleaning equipment and associated storage tank were no longer used after 1978.

With respect to Elixir's proposed revisions to paragraph 8(b) of the same section, we object to the addition of the proposed last sentence, which is Elixir's argument.

We trust that the RWQCB will consider our comments and make the requested revisions. If there are any questions, or if any additional information is needed, please do not hesitate to contact me.

Very truly yours,



Michael A. Francis

MAF/blt

Enclosure

cc: Mrs. Anita Lorber (*via e-mail*)

EXHIBIT A

Figueroa

LEGEND

- Well location (monitoring and/or pumping)
Not all wells on Elixir site are illustrated
 - Geoprobe boring location
GP indicates Elixir boring
(Ref. Inyotreat report 5/5/00)
LSP indicates LLC boring
(Ref. ASE report 1/2/02)
 - Deep CPT and Hydropach boring locations
(Ref. ASE report June 2004)
- Areas recommended for multiple depth groundwater assessment to 100 ft.

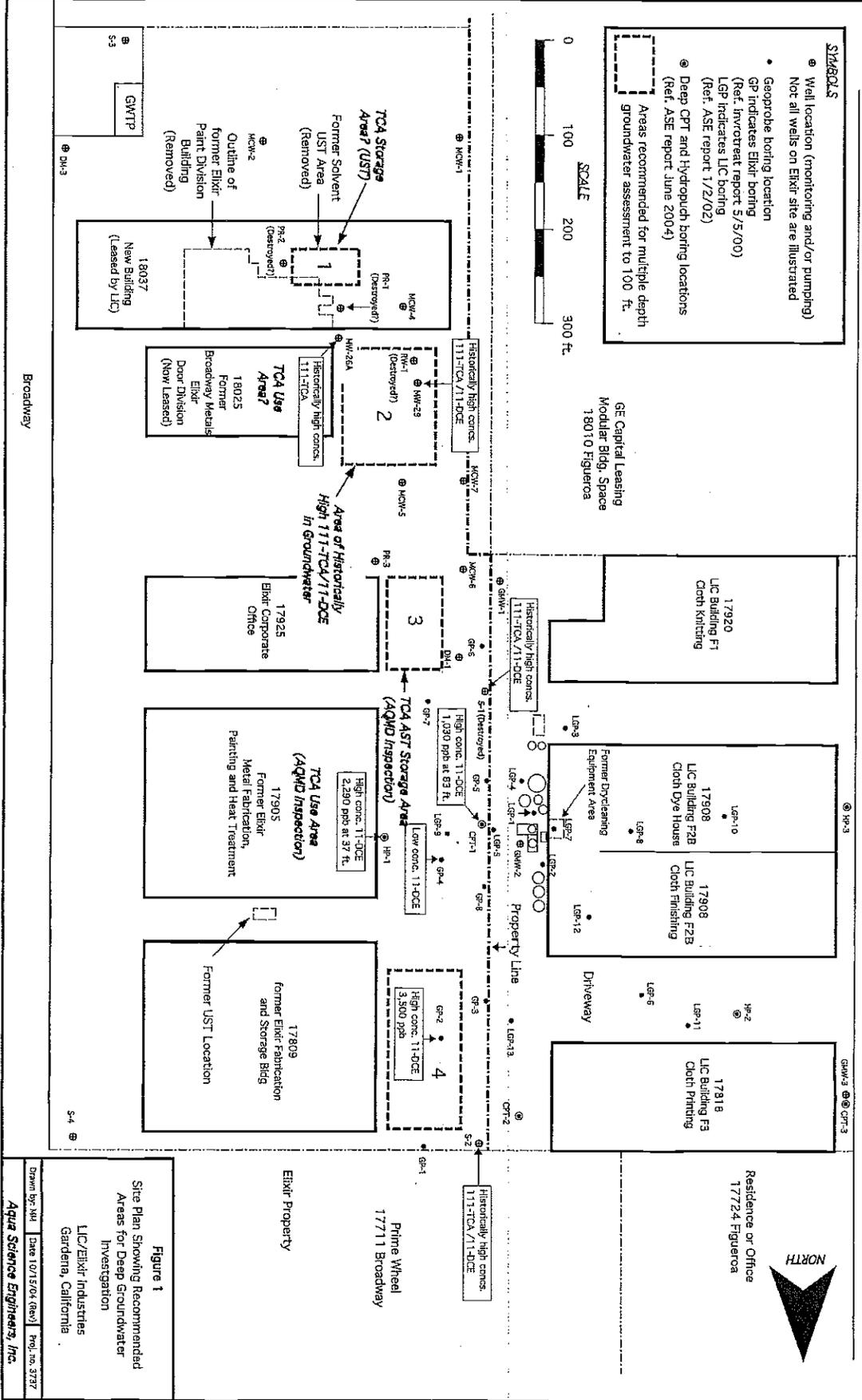


Figure 1
Site Plan Showing Recommended Areas for Deep Groundwater Investigation
LIC/Elxir Industries
Gardena, California

Drawn by: NHI Date: 10/15/04 (Rev.) Proj. no. 3737
Aqua Science Engineers, Inc.

EXHIBIT B

EXHIBIT C



EDWARD G. BRACK, JR.
GOVERNOR



MATTHEW R. BURNETT
REGIONAL BOARD
CHAIRMAN

Los Angeles Regional Water Quality Control Board

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NUMBER R4-
2014-XXXX REQUIRING

~~LORBER INDUSTRIES OF CALIFORNIA AND TGA CARSON~~
~~PROPERTIES I, LLC AND TGA CARSON PROPERTIES II, LLC~~

TO ASSESS, CLEAN UP, AND
ABATE WASTE DISCHARGED TO
WATERS OF THE STATE

(PURSUANT TO CALIFORNIA WATER CODE SECTIONS 13304 AND 13267)

AT LORBER INDUSTRIES
17908 SOUTH FIGUEROA, CARSON,
CALIFORNIA 90248 (SITE CLEANUP NO. 1056;
SITE ID NO. 2040022)

This Cleanup and Abatement Order (Order) is issued to Lorber Industries of California ~~and TGA Carson Properties I, LLC and TGA Carson Properties II, LLC~~ based on California Water Code sections 13304 and 13267, which authorize the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

The Regional Board finds that:

BACKGROUND

1. Discharger: Lorber Industries (Lorber), Lorber Industries of California, and TGA Carson Properties I, LLC and TGA Carson Properties II, LLC, (hereinafter collectively called "Responsible Parties" or "RPs") "Dischargers" are considered responsible parties due to their ownership of the property or conducting industrial operations at the Site. Lorber has no representatives or remaining assets to respond after petitioning and receiving an order completing a bankruptcy in the US Bankruptcy Court for the Central District of California.
 - a) Lorber conducted industrial operations consisting of textile and fabric manufacturing at the Site from 1972 until 2006, when it filed for Chapter 11 bankruptcy. ~~In 2008, the name of the owner of the Lorber property was changed to TGA Carson Properties I, LLC and TGA Carson Properties II, LLC.~~

- b) In 2008, the name of the owner of the Lorber real properties commonly known as 17908 and 17920 S. Figueroa, y-beated in Carson, California was changed to TGA Carson Properties-I, LLC and the owner of the real property commonly known as 17818 S. Figueroa, Carson, California was changed to TGA Carson Properties II, LLC without execution of a real estate sale.

As detailed in this Cleanup and Abatement Order (Order), ~~the Dischargers Lorber~~ allegedly has have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state which creates, or threatens to create, a condition of pollution or nuisance.

2. **Location:** The Site is approximately 0.5 mile east of the 110 Freeway and 0.5 mile south of the 91 Freeway in the City of Carson. Figure 1 of Attachment A presents the Site Location Map. The Site consists of:
- 17920 South Figueroa (LA County Assessor Parcel No. [APN] 7339-006-003)
 - 17908 South Figueroa (APN 7339-006-002)
 - ~~17818 South Figueroa (APN 7339-006-001)~~

~~In 1994, Lorber leased the Elixir Industries property located at 17905 South Broadway for its operations. In 1999, Lorber built a new building at 18037 South Broadway on Elixir Industries property.~~

3. **Groundwater Basin:** The Site is located in the West Coast Basin of the Los Angeles County Coastal Plain. Beneath the Site, the West Coast Basin consists of the Bellflower Aquiclude which extends from the ground surface to an approximate depth of 120 feet below the ground surface (ft bgs). The Bellflower Aquiclude consists of a series of water bearing strata (aquifers) separated by less permeable beds of silts and clays (aquicludes). The Gage Aquifer of the Lakewood Formation is located below the Bellflower Aquiclude overlying the Lynwood and Silverado Aquifers of the San Pedro Formation. Three groundwater monitoring wells located at the Site are screened within the Bellflower Aquiclude. The groundwater occurs at approximately 22 feet bgs and the groundwater flow is towards the northwest.

As set forth in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, and amended from time to time, the designated beneficial uses for groundwater in the West Coast Basin include municipal and domestic drinking water supply (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR).

SITE HISTORY

4. **Site Description and Activities:** The Site consists of three buildings that occupy approximately 5.5 acres along South Figueroa Street in City of Carson, California. The Lorber Site was undeveloped prior to 1970. Since 1972 until approximately 2006, Lorber has operated a textile knitting and dyeing operation at its facility. Textile processes used onsite include knitting, dyeing and drying of cloth, addition of fabric softeners, and printing. From 1974 to 1978, a Permac dry cleaning machine that used tetrachloroethylene (PCE) was operated onsite, inside the building on the real property commonly known as 17908 S. Figueroa. A 200-gallon PCE above-ground storage tank (AST) was located on a nearby bermed concrete pad at this address. The dry cleaning machine was reportedly removed from service in 1978. The 200-gallon PCE AST was ~~may have also been removed from service at that time. The property is currently occupied.~~ Figure 2 of Attachment A, attached hereto and incorporated herein, depicts

5. **Chemical Usage:** A dry cleaning machine was located at the Site located inside the building on the 17908 S. Figueroa property and PCE was used as the cleaning solvent as noted in Finding No. 4. The dry cleaning machine was operated to clean unsoiled polyester and "gavadine" cloth for clients. A 200-gallon capacity above-ground tank was used to store PCE.

EVIDENCE OF WASTE DISCHARGES AND BASIS FOR ORDER

6. **Waste Discharges:** Volatile organic compounds were discovered in groundwater at the Site in 1991 when a groundwater monitoring well was installed in the southeast corner of the Site. Subsequent investigations consisting of soil and groundwater sampling conducted at the Site confirmed that soil and groundwater beneath the Site are impacted with chemicals. In 1999, a soil gas survey was also conducted at the adjacent Elixir Industries property along the eastern boundary of the Lorber Site. The data collected from environmental investigations conducted at the Site indicate that waste discharges from the upgradient property formerly owned by Elixir Industries have impacted the Site and that waste discharge(s) of PCE may have occurred during industrial operations at the Site.

The following volatile organic compounds (VOCs) have been detected in soil, and groundwater: PCE, trichloroethylene (TCE), cis1,2-dichloroethylene (cis1,2-DCE); vinyl chloride, 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE), benzene, toluene, total xylenes and 1,4-dioxane. It appears that these VOCs are all associated with the Elixir Industries property, except PCE appears to be associated with the Site and the Elixir Industries property.

Concentrations of selected chemicals detected in soil and groundwater at the Site, based on analytical testing results, are presented below:

- a) **In soil:** The maximum concentrations were: PCE (1.7 milligrams per kilogram (mg/Kg)), TCE (0.577 mg/Kg), and cis1,2-DCE (1.25 mg/Kg)
- b) **In soil vapor:** PCE at 16 micrograms per liter ($\mu\text{g/L}$); TCE at 7.3 $\mu\text{g/L}$, cis1,2-DCE at 16 $\mu\text{g/L}$, vinyl chloride at 6.8 $\mu\text{g/L}$, 1,1-DCE at 21 $\mu\text{g/L}$ and benzene at 17 $\mu\text{g/L}$ were detected along the eastern property line.
- c) **In groundwater:** The historical maximum concentrations were: PCE at 20,400 $\mu\text{g/L}$; TCE at 4,900-2,130 $\mu\text{g/L}$, cis1,2-DCE at 5,670 $\mu\text{g/L}$, vinyl chloride at 2,430 $\mu\text{g/L}$, TCA at 26,000 $\mu\text{g/L}$, 1,1-DCA at 33,000 $\mu\text{g/L}$, 1,1-DCE at 1,700 $\mu\text{g/L}$, benzene at 60 $\mu\text{g/L}$, toluene at 3,600 $\mu\text{g/L}$, total xylenes at 4,000 $\mu\text{g/L}$ and 1,4-dioxane was detected at a concentration of 404 $\mu\text{g/L}$. Based on the analytical results of the multi-depth discrete groundwater sampling, the groundwater is impacted to the maximum depth of investigation of 98 feet bgs.

Elixir Industries is located adjacent and directly up-gradient from the Site. ~~Elixir Industries also hadhas discharged wastes released chemicals and investigations conducted at the property formerly owned by Elixir Industries is site indicate~~ that underlying soil and groundwater are impacted by chemicals which include the previously identified VOCs. According to the analytical results, the groundwater plume from Elixir Industries has migrated offsite and impacted the groundwater beneath the Lorber site. The Regional Board is also overseeing assessment, cleanup, and remediation of the Elixir site.

7. **Source Elimination and Remediation Status:** It is reported that the dry cleaning machine was removed from service in 1978. The 200-gallon PCE AST was may have also been removed from service at that time.

8. **Summary of Findings from Subsurface Investigations:** The Regional Board has reviewed and evaluated the technical reports and records in its files pertaining to the discharge, detection, and distribution of wastes at the Site and the Site vicinity. Elevated levels of chemicals including VOCs and other wastes have been detected in soil and groundwater beneath the Site.
- a) The PCE, TCE, vinyl chloride and benzene concentrations in soil gas detected along the boundaries of the Site and the Elixir Industries property exceed the California Human Health Screening Levels (CHHSLs) of 0.603 µg/L, 1.77 µg/L, 0.0448 µg/L and 0.122 µg/L, respectively for commercial/industrial land use posing a potential threat to human health through vapor intrusion into the indoor air.
- b) The PCE, TCE, cis-1,2-DCE, vinyl chloride, TCA, 1,1-DCA, 1,1-DCE, benzene, toluene and total xylenes detected in the groundwater beneath the Site and the Elixir Industries property exceed their respective State Water Resources Control Board, Division of Drinking Water (DOW) maximum contamination levels (MCLs) of 5 µg/L, 5 µg/L, 6 µg/L, 0.5 µg/L, 200 µg/L, 5 µg/L, 6 µg/L, 1 µg/L, 150 µg/L and 1,750 µg/L posing a threat to drinking water resources. The concentration of 1,2-dioxane in groundwater detected in the groundwater beneath the Site and the Elixir Industries property exceeds its notification level of 1 µg/L established by DOW.
9. **Regulatory Status:** The Regional Board has provided regulatory oversight for the Site since 2001 under the Regional Board's Site Cleanup Program (SCP). In 2005, the Regional Board approved a work plan for additional assessment at the Site. Lorber Industries ceased its operation at the Site in 2006 when it filed for Chapter 11 bankruptcy. No additional work has been performed since the approval of the work plan due to reported financial difficulties by Lorber.
10. **Impairment of Drinking Water Wells:** The Regional Board has the authority to require the ~~Dischargers~~ Responsible Parties to pay for or provide uninterrupted replacement water service to each affected public water supplier or private well owner in accordance with Water Code section 13304.
11. **Sources of Information:** The sources for the evidence summarized above include but are not limited to: reports and other documentation in the Regional Board files, telephone calls and e-mail communication with the Responsible Parties, Dischargers Elixir Industries, Sahn Broadway and their respective consultants, and Site visits.

AUTHORITY • LEGAL REQUIREMENTS

12. Section 13304(a) of the Water Code provides that:

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, cleanup the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup and abatement order, the Attorney General, at

the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

13. Section 13304(c)(1) of the California Water Code provides that:

"[T]he person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action."

14. Section 13267(b)(1) of the California Water Code provides that:

"In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

15. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (Resolution 92-49). Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the "Statement of Policy With Respect to Maintaining High Quality of Waters in California." Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.
16. The Regional Board adopted the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which identifies beneficial uses and establishes water quality objectives to protect those uses. The Site overlies groundwater in the West Coast Basin of the Los Angeles Coastal Plain. The designated beneficial uses of the groundwater beneath the Site are Municipal (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR). As noted in paragraph 8.c, the exceedance of applicable water quality objectives in the Basin Plan constitutes pollution as defined in Water Code section 13050(1)(1). The wastes detected in groundwater, soil matrix and vapor at the Site threaten to cause pollution and nuisance.
17. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring the cleanup and remediation of waste in groundwater that is or may be used for domestic purposes, to meet standards designed to protect human health.

18. **Public Participation:** The Regional Board may require the Responsible Parties Dischargers to submit a Public Participation Plan or engage in other activities to disseminate information and gather community input regarding the Site, as authorized or required by Water Code sections 13307.1, 13307.5 and 13307.6.

DISCHARGERS LIABILITY

19. As described in this Order and the record of the Regional Board, the Responsible Parties Dischargers are subject to an order pursuant to Water Code section 13304 because the Lorber Industries Dischargers may have caused or permitted waste, including VOGs specifically, PCE, to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. The Dischargers Lorber Industries is alleged to have have caused or permitted PCE VOGs to be discharged or deposited where the wastes are, or probably will pose, a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code Section 13304 is appropriate and consistent with the policies of the Regional Board.
20. The constituents found at the Site are described in Finding 8 and the Regional Board files related to this Site and the Elixir Industries properties. These constituents constitute "waste" as defined in Water Code section 13050(d). The analytical data indicates that the Elixir Industries property is the source of the discharges of wastes that have impacted the groundwater beneath the Site. The data is inconclusive as to whether a release of PCE occurred as a result of the former operations of Lorber Industries at the Site. The -of-waste has allegedly resulted in pollution, as defined in Water Code section 13050(1), and nuisance as defined in Water Code section 13050(m). The concentration of wastes in soil and groundwater exceed water quality objectives contained in the Basin Plan, including maximum contaminant levels (MCLs).
21. This Order requires investigation and cleanup of the Site in compliance with the Water Code, the applicable Basin Plan, State Water Board Resolution 92-49, and other applicable plans, policies, and regulations. TGA Carson Properties-I, LLC, and TGA Carson Properties-II LLC and Lorber Industries of California as the current and former owner and operator of the Site and facilities at the Site are responsible for complying with this Order.
22. This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267. The Dischargers-Responsible Parties are required to submit the reports because, as described in the findings in this Order and the records of the Regional Board, the Dischargers the Responsible Parties are -discharged waste and is suspected of having discharged or discharging waste consisting of PCE at the Site or own real property (the Site) where it is suspected a discharge of waste consisting of PCE has occurred. The reports are necessary to evaluate the extent of the impacts of the discharge of waste on water quality and public health, and to determine the scope of the remedy necessary to cleanup and abate those impacts. The burden, including costs, of the reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Additional evidence in support of requiring these reports can be found in the Regional Board files related to this Site.

CONCLUSIONS

23. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Pubic

Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Responsible Parties ~~Dischargers~~ to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order could have a significant effect on the environment, the Regional Board, or other lead agency, will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.

24. Pursuant to sections 13304 and 13365 of the Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, including public participation.
25. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m. 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

REQUIRED ACTIONS

THEREFORE, IT IS HEREBY ORDERED, pursuant to sections 13267 and 13304 of the California Water Code that the ~~Dischargers~~ Responsible Parties shall investigate, cleanup, and abate the effects of waste discharged or deposited at or from the Site in accordance with the following requirements:

1. **Conduct Site Assessment:** Develop, Submit and Implement a Site Assessment Work Plan(s) to Assess, Characterize and Delineate the Extent of PCE associated with a discharge(s) originating at the Site ~~Wastes~~ in Soil, Soil Vapor and Groundwater:
 - a. Fully assess and characterize and completely delineate the vertical and lateral extent of ~~wastes~~ PCE associated with a discharge(s) originating at the Site onsite and offsite in the soil matrix, soil vapor, and groundwater. The Assessment will include ~~VOCs and~~ any other waste constituents that were discharged or deposited at the Site, but the Assessment will not include VOCs or any other waste constitutes that did not originate at the Site.
 - b. Identify the locations of all waste sources at the Site such as tanks, clarifiers, sumps, piping and other sources, to allow for full assessment of the extent of waste discharged at the Site.
 - c. Include a time schedule for implementation of the work proposed in the Site Assessment Work Plan.

- d. Upon Executive Officer approval of the Site Assessment Work Plan(s) and time schedule, implement the Site Assessment Work Plan in accordance with the approved schedule. Upon completion of the work, submit a Site assessment report to the Regional Board containing the results, conclusions and recommendations.
 - e. Develop and include a Site Conceptual Model (SCM) in Site Assessment reports submitted to the Regional Board in Site Assessment reports.
 - f. Completion of the Site Assessment may require multiple work plans.
2. **Conduct Remedial Action:** Develop and implement a plan for the cleanup of waste discharged at the Site above applicable regulatory levels which may include risk based clean-up levels, in the soil matrix, soil vapor, and groundwater and abatement of the effects of the waste. Specifically, you shall:
- a. Develop a comprehensive Remedial Action Plan (RAP) for cleanup of PCE waste that originated on the Site in the soil matrix, soil vapor and groundwater discharged or deposited at the Site and submit it to the Regional Board for review and approval. The RAP shall include, at a minimum:
 - i. Preliminary cleanup goals for soil and groundwater in compliance with State Water Board Resolution 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"). The cleanup levels must be protective of the human health, groundwater and surface water resources, environment and the beneficial uses set forth in the Basin Plan. Alternative cleanup levels to background for groundwater shall not exceed water quality objectives in the Basin Plan. Alternative cleanup levels to background for soil and soil vapor shall not exceed levels that will result in groundwater exceeding water quality objectives in the Basin Plan.
 - ii. Discussion of the technology(ies) proposed for remediation of soil matrix, soil vapor and groundwater.
 - iii. Description of the selection criteria for choosing the proposed method over other potential remedial options. Discuss the technical merit, suitability of the selected method under the given Site conditions and waste constituents present, economic and temporal feasibility, and immediate and/or future beneficial results.
 - iv. Description of any pilot projects intended to be implemented.
 - v. Estimation of cumulative mass of wastes to be removed with the selected method. Include all calculations and methodologies used to obtain this estimate.
 - vi. A proposed schedule for completion of the RAP.
 - b. Revisions to or additional RAPs may be needed if the implemented remedial measure does not completely achieve all Site cleanup goals.
 - c. Upon Regional Board approval of the Remedial Action Plan(s), you shall implement the RAP in accordance with the approved time schedule.
 - d. You shall submit remediation progress reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B. The remediation progress reports shall document all performance data associated with the operating systems.
3. **Conduct Human Health Risk Assessment:** Upon assessment and/or implementation

of the remedial action at the Site, the ~~Responsible Parties~~ ~~Dischargers~~ shall conduct a human health risk assessment (HHRA) using concentrations of chemicals in soil, soil vapor and groundwater at the Site.

4. **Conduct Groundwater Monitoring:**

- a. Develop a groundwater monitoring program. The ~~Dischargers~~ ~~Responsible Parties~~ shall evaluate the groundwater monitoring program previously implemented at the Site and develop a revised plan that includes new and/or replacement wells, installed in accordance with the action required in Requirement No. 2. In the evaluation, the ~~Dischargers~~ ~~Responsible Parties~~ must consider all pertinent information from each well including, but not limited to, the location of the well, total depth, well construction details, subsurface lithology and groundwater zones, and historical analytical results. The revised groundwater monitoring program must also include a sampling and analysis plan.
- b. Upon Regional Board approval of the Groundwater Monitoring Program, you shall implement the plans in accordance with the approved time schedule.
- c. You shall submit Groundwater Monitoring Program reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B.
- d. Revision to the Groundwater Monitoring Program may be needed based on the results of groundwater monitoring. The Regional Board may require revisions to and implementation of the revised Groundwater Monitoring Programs, but will consider revisions to the due dates if additional work is needed.

5. Time Schedule: The ~~Dischargers~~ ~~Responsible Parties~~ shall submit all required work plans and reports and complete work within the schedule in any approved work plan or RAP and the time schedule listed in Attachment B attached hereto and incorporated herein by reference, which may be revised by the Executive Officer without amending this Order. No such revision will be effective unless made in writing.

~~5-6.~~ All assessment and any remedial actions or similar work required by this Order and the Cleanup and Abatement Order issued to Elixir Industries and Sahn Broadway Property, LLC, must be appropriately coordinated.

~~6-7.~~ The Regional Board's authorized representative(s) shall be allowed:

- a) Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;

- b) Access to copy any records that are stored under the conditions of this Order;
- c) Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d) The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.

~~7-8.~~ Contractor/Consultant Qualification: As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a California registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Responsible Parties ~~Dischargers~~ shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals that reflects a license expiration date.

~~8-9.~~ This Order is not intended to permit or allow the Dischargers ~~Responsible Parties~~ to cease any work required by any other Order issued by the Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by the Regional Board or any other agency. Furthermore, this Order does not exempt the Dischargers ~~Responsible Parties~~ from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.

~~9-10.~~ The Dischargers ~~Responsible Parties~~ shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the Site and shall provide a 30-day advance notice of any planned physical changes to the Site that may the Dischargers ~~Responsible Parties~~ also shall provide a 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.

~~10-11.~~ Destruction and abandonment of any groundwater well(s) at the Site must be approved by and reported to the Regional Board at least 30 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Regional Board. With written justification, the Regional Board may approve the destruction of groundwater wells without replacement. When a well is destroyed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.

~~11-12.~~ In the event compliance cannot be achieved within the terms of this Order, the Dischargers ~~Responsible Parties~~ may request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this Order are denied.

~~42-13.~~ Reference herein to determinations and considerations to be made by the Regional Board regarding the terms of the Order may be made by the Executive Officer or his/her designee. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Regional Board.

~~43-14.~~ The Regional Board, through its Executive Officer, may amend this Order as additional information becomes available. Upon request by any of the Responsible Parties, ~~by Dischargers~~, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Responsible Parties ~~Dischargers~~ under this Order without amending the Order. Any such revision must be made in writing to be effective. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.

~~44-15.~~ Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded.

~~45-16.~~ Reimburse the Regional Board for reasonable costs associated with oversight of the investigation and cleanup of the waste at or emanating from the Site. Provide the Regional Board with the name or names and contact information for the person to be provided billing statements from the State Water Resources Control Board.

~~46-17.~~ A Public Participation Plan shall be prepared and/or updated when directed by the Executive Officer as necessary to reflect the degree of public interest in the investigation and cleanup process.

~~47-18.~~ The Regional Board, under the authority given by Water Code section 13267(b)(1), requires you to include a perjury statement in all reports submitted under this Order. The perjury statement shall be signed by a senior authorized representative (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

~~48-19.~~ The State Water Board adopted regulations requiring the electronic submittals of information over the internet using the State Water Board GeoTracker data management system. You are required ~~not only to submit hard copy reports required in this Order, but also to comply by uploading all reports and correspondence prepared and required by this Order to date on~~ to the GeoTracker data management system. The text of the regulations can be found at the URL:

http://www.waterboards.ca.gov/ust/cleanup/electronicreporting/docs/final_electronic_regs_dec04.pdf.

- 19.20. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with sections 13268, 13304, 13308, and/or 13350 of the California Water Code, and/or referral to the Attorney General of the State of California.
- 20.21. The RWQCB contends that ~~n~~None of the obligations imposed by this Order on the Responsible Parties ~~Dischargers~~ are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

Attachment A

Figures

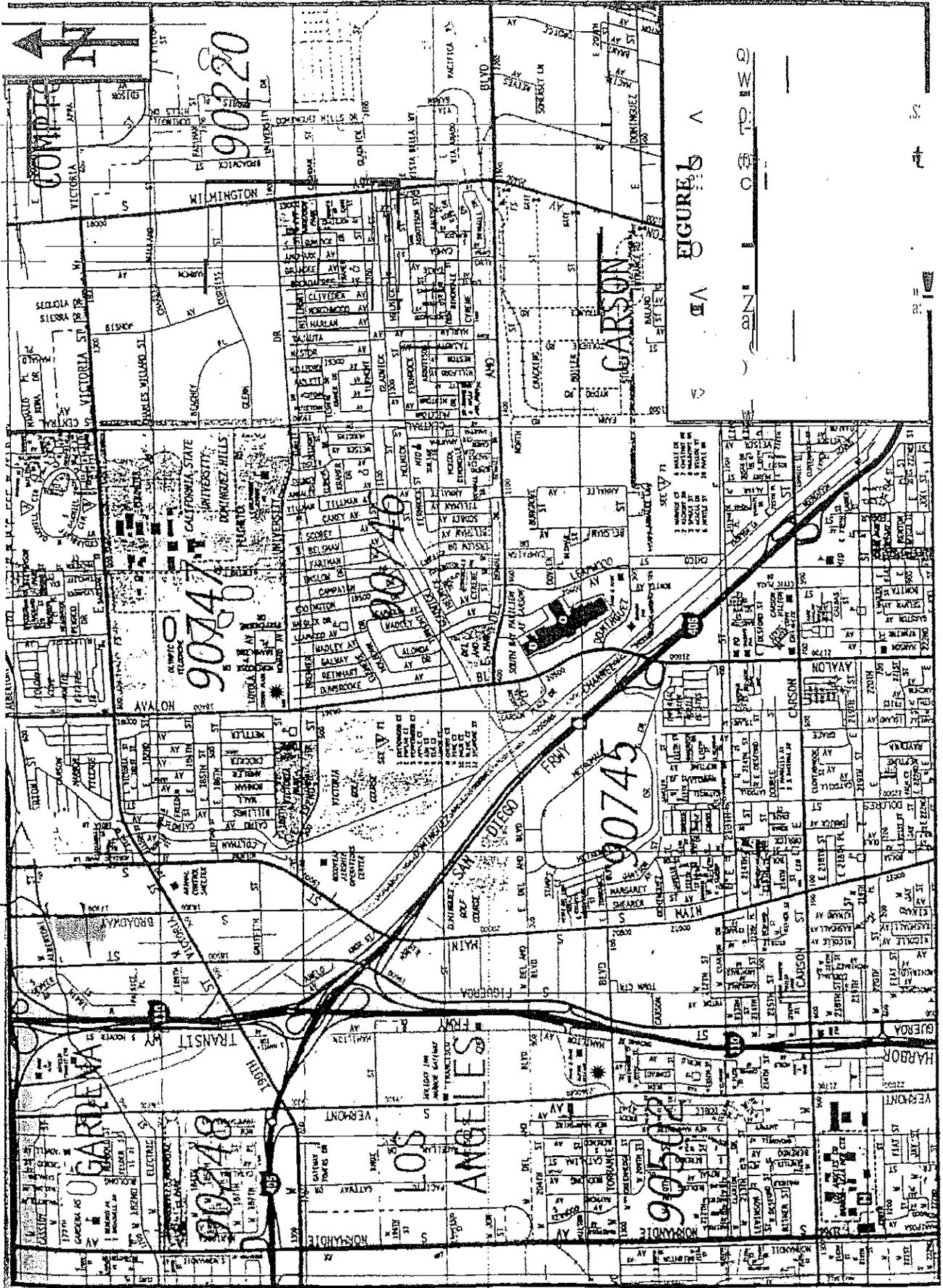


FIGURE 8

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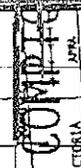
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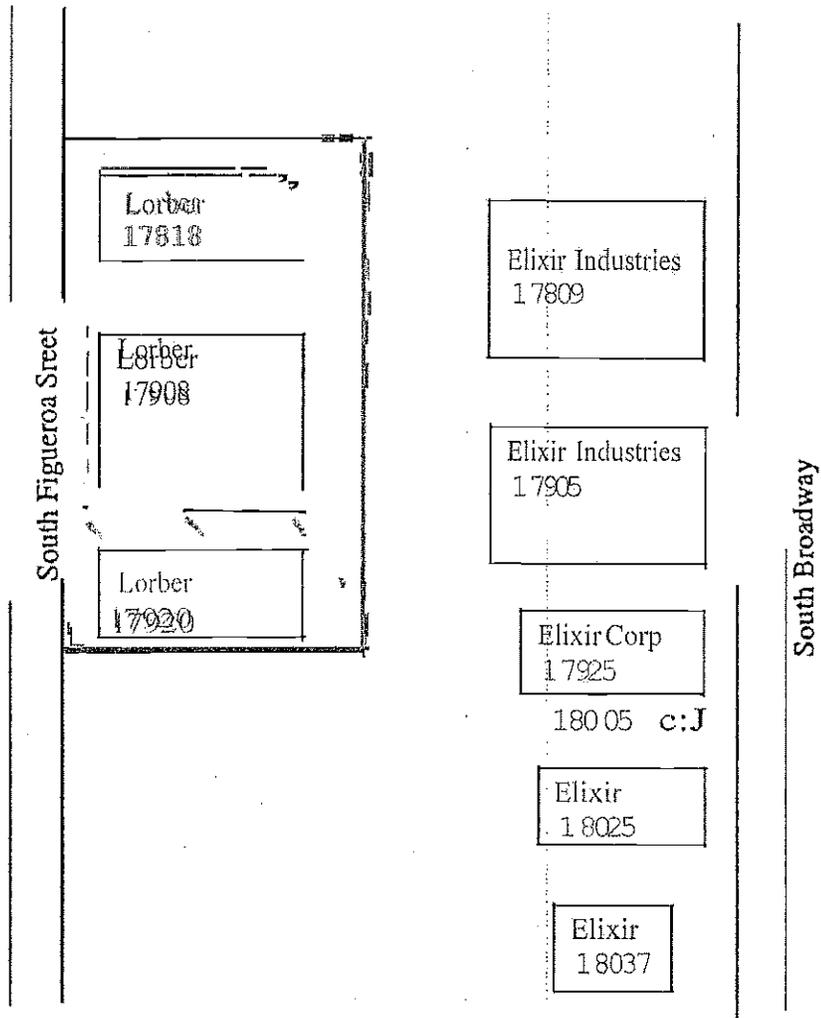


FIGURE 2
 SUBJECT & ADJACENT SITES
 LORBER INDUSTRIES

Attachment B

Time Schedule

Time Schedule

DIRECTIVE		DUE DATE
1.	Site Assessment Work Plan:	
1a.	Prepare and submit to the Regional Board a work plan including a schedule for completing delineation of lateral and vertical extent of wastes in soil gas, soil matrix and groundwater onsite and offsite <u>pursuant to the Cleanup and Abatement Order.</u>	December 15, 2014 <u>May 15, 2015</u>
1b.	Implement the Site Assessment Work Plan according to approved schedule.	According to schedule approved by the Executive Officer
1c.	Submit a Site assessment report after the approval of the work plan and its implementation	According to schedule approved by the Executive Officer
1d.	Multiple Site Assessment Work Plans may be required to complete assessment of and fully delineate waste discharge	Within 60 days of receiving directives from the Regional Board.
2.	Conduct Remedial Action:	
2a.	Submit a Remedial Action Plan(s) (RAP) for cleanup of wastes in soil, soil vapor and groundwater that includes a time schedule for implementation <u>pursuant to the Cleanup and Abatement Order.</u>	Within 60 days of receiving directives from the Regional Board.
2b.	Implement RAP.	According to schedule approved by the Executive Officer
2c.	Upon completion of implementation of the RAP, submit a Remedial Action Completion Report.	According to schedule approved by the Executive Officer
2d.	Multiple RAPs may be required to complete assessment of and fully delineate waste discharge	According to schedule approved by the Executive Officer
3.	Conduct Human Health Risk Assessment:	
3a.	Prepare and submit a human health risk assessment considering all waste constituents in the soil matrix, soil gas and groundwater, all exposure pathways and receptors and applying existing regulatory human health screening levels and/or acceptable risk assessment models <u>pursuant to the Cleanup and Abatement Order.</u>	According to schedule approved by the Executive Officer

4.	Conduct Groundwater Monitoring:	
4a.	Prepare and submit to the Regional Board a Groundwater Monitoring- Plan for the Site <u>pursuant to the Cleanup and Abatement Order</u> . Include a Sampling and analysis plan.	December 15, 2014 <u>May 15, 2015</u>
4b.	Implement the Groundwater Monitoring and Sampling Plan according to approved schedule.	According to schedule approved by the Executive Officer.
6.	Public Participation Plan	
6a	Develop a public participation plan to inform public and stakeholders about proposed activities and board actions.	According to schedule approved by the Executive Officer.

ATTACHMENT C

Monitoring and Reporting Program

**MONITORING AND REPORTING PROGRAM FOR
CLEANUP AND ABATEMENT ORDER No. R4-2014-XXXX**

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267 and is part of Cleanup and Abatement Order (Order) No. R4-2014-XXXX. Failure to comply with this MRP can result in the imposition of civil liability, pursuant to the California Water Code section 13268. All sampling and analyses shall be by USEPA approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

Laboratory analytical reports to be included in technical reports shall contain a complete list of chemical constituents which are tested for and reported on by the testing laboratory. In addition, the reports shall include both the method detection limit and the practical quantification limit for the testing methods. All samples shall be analyzed within allowable holding times. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a State Water Resources Control Board, Division of Drinking Water accredited laboratory.

The Regional Board's Quality Assurance Project Plan, September 2008, can be used as a reference and guidance for project activities involving sample collection, handling, analysis and data reporting. The guidance is available on the Regional Board's web Site at:

http://www.waterboards.ca.gov/rwqcb4/water_issues/programs/remediation/Board_SGV-SFVCleanup_Program_Sept2008_QAPP.pdf

GROUNDWATER MONITORING

~~Dischargers~~ The Responsible Parties shall collect groundwater samples from groundwater monitoring wells installed for the purpose of site investigation and monitoring. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled regularly. The groundwater surface elevation (in feet above mean sea level [MSL]) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow.

The groundwater shall be analyzed for all constituents pertinent to the Site such as provided below:

Constituent	EPA Method
Volatile Organic Compounds (full scan)	EPA 8260B
Total petroleum hydrocarbons as gasoline	EPA 8015 modified
Metals	EPA 6010
Hexavalent Chromium	EPA 7199
Ammonium Perchlorate	EPA 314.0
1,4-dioxane	EPA 8270C
N-Nitrosodimethylamine (NOMA)	EPA 1625
Temperature	Field*
pH	Field

Electrical Conductivity	Field
Oxidation-Reduction Potential (ORP)	Field
Turbidity	Field

* To be measured in the field.

REMEDIATION SYSTEMS

Reports on remediation systems shall contain all pertinent information regarding the Site remediation systems:

1. Maps showing location of all remediation wells, if applicable;
2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;
3. The report shall include tables summarizing the operating and performance parameters for the remediation systems; and
4. System inspection sheets shall document field activities conducted during each Site visit and shall be included in the reports

MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to the Order, without amending the Order. Monitoring frequencies may be adjusted or parameters and locations removed or added by the Executive Officer, without amending the Order, if site conditions indicate that the changes are necessary. Any revisions to monitoring requirements or monitoring frequencies must be made in writing to be effective.

REPORTING REQUIREMENTS

1. The Responsible Parties, ~~Dischargers~~ shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Responsible Parties, ~~Dischargers~~ shall be deemed to be in noncompliance with the Monitoring and Reporting Program
2. Regular groundwater monitoring reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July-September	October 15
October - December	January 15

Groundwater monitoring reports shall include a contour map showing groundwater elevations at the Site and the groundwater flow direction. The quarterly groundwater monitoring reports shall include tables summarizing the historical depth-to-water, groundwater elevations and historical analytical results for each monitoring well. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Water Board. Field monitoring well sampling sheets shall be completed for each monitoring well sampled and included in the report.

Remediation progress reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January-March	April 15
April-June	July 15
July - September	October 15
October - December	January 15

3. Remediation progress reports shall include an estimate of the cumulative mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, any field notes pertaining to the operation and maintenance of the system and, if applicable, the reasons for and duration of all interruptions in the operation of any remediation system and actions planned or taken to correct and prevent interruptions.
4. In reporting the monitoring data, the Responsible Parties—Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in electronic form in a form acceptable to the Regional Water Board.

EXHIBIT

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Water Boards

Los Angeles Regional Water Quality Control Board

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

**MODIFIED CLEANUP AND ABATEMENT ORDER NUMBER R4-2015-0131
REQUIRING**

LORBER INDUSTRIES, LORBER INDUSTRIES OF CALIFORNIA, TGA CARSON
PROPERTIES, LLC AND TGA CARSON PROPERTIES II, LLC

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TO ASSESS, CLEAN UP, AND ABATE
WASTE DISCHARGED TO WATERS OF THE STATE
(PURSUANT TO CALIFORNIA WATER CODE SECTIONS 13304 AND 13267)

AT LORBER INDUSTRIES
17818, 17908, 17920 SOUTH FIGUEROA, CARSON, CALIFORNIA 90248
(SITE CLEANUP NO. 1056; SITE ID NO. 2040022)

This Cleanup and Abatement Order (Order) is issued to Lorber Industries, Lorber Industries of California, TGA Carson Properties, LLC, and TGA Carson Properties II, LLC based on California Water Code sections 13304 and 13267, which authorize the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

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The Regional Board finds that:

BACKGROUND

1 **Discharger:** Lorber Industries (Lorber), Lorber Industries of California, TGA Carson Properties, LLC and TGA Carson Properties II, LLC (hereinafter collectively called "Dischargers") are considered responsible parties due to their ownership of the property or conducting industrial operations at the Site.

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a) Lorber conducted industrial operations consisting of dry cleaning operations, textile and fabric manufacturing at the Site from the early 1970s until 2006, when it filed for Chapter 11 bankruptcy.

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b) In 2008, the owner of the real properties commonly known as 17920 and 17908 South Figueroa, Carson, California is TGA Carson Properties II, LLC and the owner of real property commonly known as 17818 South Figueroa,

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2. **Location:** The Site is approximately 0.5 mile east of the 110 Freeway and 0.5 mile south of the 91 Freeway in the City of Carson. Figure 1 of Attachment A presents the Site Location Map. The Site consists of:
17920 South Figueroa (LA County Assessor Parcel No. [APN] 7339-006-003) 17908
South Figueroa (APN 7339-006-002)
17818 South Figueroa (APN 7339-006-001)

In 1990, Lorber leased the Elixir Industries property located at 17809 wherein Lorber conducted operations involving the use and storage of chemicals. In 1994, Lorber leased the Elixir Industries property located at 17905 South Broadway for its operations. In 1999, Lorber built a new building at 18037 South Broadway on Elixir Industries property.

3. **Groundwater Basin:** The Site is located in the West Coast Basin of the Los Angeles County Coastal Plain. Beneath the Site, the West Coast Basin consists of the Bellflower Aquiclude which extends from the ground surface to an approximate depth of 120 feet below the ground surface (ft bgs). The Bellflower Aquiclude consists of a series of water bearing strata (aquifers) separated by less permeable beds of silts and clays (aquicludes). The Gage Aquifer of the Lakewood Formation is located below the Bellflower Aquiclude overlying the Lynwood and Silverado Aquifers of the San Pedro Formation. Three groundwater monitoring wells located at the Site are screened within the Bellflower Aquiclude. The groundwater occurs at approximately 22 feet bgs and the groundwater flow is towards the northwest.

As set forth in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, and amended from time to time, the designated beneficial uses for groundwater in the West Coast Basin include municipal and domestic drinking water supply (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR).

SITE HISTORY

4. **Site Description and Activities:** The Site consists of three buildings that occupy approximately 5.5 acres along South Figueroa Street in City of Carson, California. The Lorber Site was undeveloped prior to 1970. Since at least 1971- until approximately 2006, Lorber has operated a textile knitting and dyeing operations at its facility. Textile processes used onsite include knitting, dyeing and drying of cloth, addition of fabric softeners, and printing. Lorber's textile operations included knitting, preparation, dyeing, printing, chemical and mechanical finishing. Lorber employed 500 employees and was one of the largest dyehouses in Los Angeles and Los Angeles was the second largest center for the garment industry in the United States. Lorber used an UST on the 17908 S. Figueroa property as a fuel oil storage tank. To the east of the building at 17908 S. Figueroa, Lorber operated large chemical storage tanks and a sewer discharge vault/sump system. Lorber had at least three tall tanks about 12 feet high that contained some type of liquid. From 1971, to at least 1987, Lorber conducted dry cleaning operations, including a Permac dry cleaning machine that used tetrachloroethylene (PCE) was operated onsite. A 500-gallon PCE above-ground storage tank (AST) was located on a nearby bermed concrete pad. Lorber Industries conducted textile operations at 17920, 17908 and 17920 South Figueroa but 17920 South Figueroa is considered the actual source of PCE contamination since the dry cleaning operation were conducted at this address. The property at 17920 South Figueroa is currently vacant. The tenant at 17908 South Figueroa is Image First of Co., and it is a wash/laundry but does not use solvents. The current tenant at 17818 South Figueroa is Cedarwood-Young Co. dba Allan Co., and it is used as a warehouse/distribution center. Figure 2 of Attachment A, attached hereto and incorporated herein, depicts the Site features.

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Modified Cleanup and Abatement Order No. R4-2015-0131

5. **Chemical Usage:** Lorber's textile operations used 1, 1, 1-TCA, 1, 4-dioxane, toluene, xylene, and benzene. Lorber's dry cleaning used PCE, TCE, 1, 1, 1-TCA, 1, 4-Dioxane, benzene, and formaldehyde as cleaning solvents as noted in Finding No. 4. The dry cleaning machine was operated to clean unsoiled polyester and "gavadine" cloth for clients. A 500-gallon capacity above-ground tank was used to store PCE.

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EVIDENCE OF WASTE DISCHARGES AND BASIS FOR ORDER

6 **Waste Discharges:** Lorber's textile, dry cleaning, and fabric manufacturing operations released and discharged PCE, TCE, 1, 1, 1-TCA, 1, 4-dioxane, toluene, xylene, and benzene into the sewer, soil and groundwater at the Site. Such volatile organic compounds were discovered in groundwater at the Site in 1991 when a groundwater monitoring well was installed in the southeast corner of the Site. Subsequent investigations consisting of soil and groundwater sampling conducted at the Site confirmed that soil and groundwater beneath the Site are impacted with chemicals. In 1999, a soil gas survey was also conducted at the adjacent Elixir Industries property along the eastern boundary of the Lorber Site. The data collected from environmental investigations conducted at the Site indicate that waste discharges occurred during industrial operations at the Site.

The following volatile organic compounds (VOCs) have been detected in soil and groundwater: PCE, trichloroethylene (TOE), cis1,2-dichloroethylene (cis1,2-DCE); vinyl chloride, 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE), benzene, toluene, total xylenes and 1,4-dioxane.

Concentrations of selected chemicals detected in soil and groundwater at the Site, based on analytical testing results, are presented below:

- a) **In soil:** The maximum concentrations were: PCE 1.7 milligrams per kilogram (mg/Kg), TCE (0.577 mg/Kg), and cis1,2-DCE (1.25 mg/Kg). 1, 1-DCA and 1, 1-DCE were also detected in soil samples (LPG-5) at the site.
- b) **In soil vapor:** PCE at 16 micrograms per liter (pg/L); TCE at 7.3 pg/L, cis1,2-DCE at 16 pg/L, vinyl chloride at 6.8 pg/L, 1,1-DCE at 21 pg/L and benzene at 17 pg/L were detected along the eastern property line.
- c) **In groundwater:** The historical maximum concentrations were: PCE at 9,140 Ng/L; TCE at 2,130 pg/L, cis1,2-DCE at 5,670 pg/L, vinyl chloride at 2,430 pg/L, TCA at 26,000 pg/L, 1,1-DCA at 33,000 pg/L, 1,1-DCE at 1,700 pg/L, benzene at 60 pg/L, toluene at 3,600 pg/L, total xylenes at 4,000 pg/L and 1,4-dioxane was detected at a concentration of 404 pg/L. Based on the analytical results of the multi-depth discrete groundwater sampling, the groundwater is impacted to the maximum depth of investigation of 98 feet bgs.

7 **Source Elimination and Remediation Status:** Lorber has failed to perform any remedial actions, despite Lorber's extensive textile, fabric manufacturing operations since the early 1970s with documented soil, soil vapor, and groundwater contamination at the property of chemicals used in Lorber's operations.

- Deleted: Elixir Industries is located adjacent and directly up-gradient from the Site. Elixir Industries has discharged wastes and investigations conducted at the property formerly owned by Elixir Industries indicate that underlying soil and groundwater are impacted by chemicals, which also include previously identified VOCs. According to the analytical results, the groundwater plume from Elixir Industries has migrated offsite beneath the Lorber site. The Regional Board is also overseeing assessment, cleanup, and remediation of the Elixir site.
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- Deleted: machine was removed in 1978. The 200-gallon PCE AST was also removed from
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8 **Summary of Findings from Subsurface Investigations:** The Regional Board has reviewed and evaluated the technical reports and records in its files pertaining to the discharge, detection, and distribution of wastes at the Site and the Site vicinity. Elevated levels of chemicals including VOCs and other wastes have been detected in soil, soil vapor, and groundwater beneath the Site.

Modified Cleanup and Abatement Order No. R4-2015-0131

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- a) The PCE, TCE, vinyl chloride and benzene concentrations in soil gas exceed the [California Department of Toxic Substances Control Office of Human and Ecological Risk \(HERO\), HERO HHRA Note Number 3 \(July 14, 2014\)](#) for commercial/industrial land use posing a potential threat to human health through vapor intrusion into the indoor air.
- b) The PCE; TCE, cis1,2-DCE, vinyl chloride, TCA, 1,1-DCA, 1,1-DCE, benzene, toluene and total xylenes exceed their respective State Water Resources Control Board, Division of Drinking Water (DDW) maximum contamination levels (MCLs) of 5 pg/L, 5 pg/L, 6 pg/L, 0.5 pg/L, 200 pg/L, 5 pg/L, 6 pg/L, 1 pg/L, 150 pg/L and 1,750 pg/L posing a threat to drinking water resources. The concentration of 1,1-dioxane in groundwater exceeds its notification level of 1 pg/L established by DDW.

9. **Regulatory Status:** The Regional Board has provided regulatory oversight for the Site since 2001 under the Regional Board's Site Cleanup Program (SCP). In 2005, the Regional Board approved a work plan for additional assessment at the Site. Lorber Industries ceased its operation at the Site in 2006 when it filed for Chapter 11 bankruptcy. No additional work has been performed since the approval of the work plan due to reported financial difficulties by Lorber. However, the Site owners, TGA Carson Properties, LLC and TGA Carson Properties II, LLC are responsible for the contamination at the Site.

10. **Impairment of Drinking Water Wells:** The Regional Board has the authority to require the Dischargers to pay for or provide uninterrupted replacement water service to each affected public water supplier or private well owner in accordance with Water Code section 13304.

11. **Sources of Information:** The sources for the evidence summarized above include but are not limited to: reports and other documentation in the Regional Board files for Elixir Industries and Lorber Industries, telephone calls and e-mail communication with the Dischargers, and their consultants.

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AUTHORITY - LEGAL REQUIREMENTS

12. Section 13304(a) of the Water Code provides that:

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, cleanup the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup and abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

13. Section 13304(c)(1) of the California Water Code provides that:

"[R]he person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement

activities, or taking other remedial action. "

14. Section 13267(b)(1) of the California Water Code provides that:

"In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

15. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (Resolution 92-49). Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the "Statement of Policy With Respect to Maintaining High Quality of Waters in California." Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.
16. The Regional Board adopted the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which identifies beneficial uses and establishes water quality objectives to protect those uses. The Site overlies groundwater in the West Coast Basin of the Los Angeles Coastal Plain. The designated beneficial uses of the groundwater beneath the Site are Municipal (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR). As noted in paragraph 8.c, the exceedance of applicable water quality objectives in the Basin Plan constitutes pollution as defined in Water Code section 13050(1)(1). The wastes detected in groundwater, soil matrix and vapor at the Site threaten to cause pollution and nuisance.
17. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring the cleanup and remediation of waste in groundwater that is or may be used for domestic purposes, to meet standards designed to protect human health.
18. **Public Participation:** The Regional Board may require the Dischargers to submit information or take actions to meet the requirements of California Water Code sections 13307.1 and 13307.6.

DISCHARGERS LIABILITY

19. As described in this Order and the record of the Regional Board, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have caused or permitted waste, including VOCs including PCE, TCE, 1, 1, 1-TCA and their degradation products, as well as toluene, xylene, 1, 4-dioxane and benzene to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition

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of pollution or nuisance. The Dischargers have caused or permitted these VOCs to be discharged or deposited where the wastes are, or probably will pose, a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air.

20. The constituents found at the Site are described in Finding 8 and the Regional Board files related to this Site. These constituents constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l), and nuisance as defined in Water Code section 13050(m). The concentration of wastes in soil and groundwater exceed water quality objectives contained in the Basin Plan, including maximum contaminant levels (MCLs).
21. This Order requires investigation and cleanup of the Site in compliance with the Water Code, the applicable Basin Plan, State Water Board Resolution 92-49, and other applicable plans, policies, and regulations. Lorber Industries, Lorber Industries of California, TGA Carson Properties II, LLC, and TGA Carson Properties, LLC as the current and former owners and operators of the Site and facilities at the Site are responsible for complying with this Order.
22. This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267. The Dischargers are required to submit the reports because, as described in the findings in this Order and the records of the Regional Board, the Dischargers discharged waste and is suspected of having discharged or discharging waste at the Site. The reports are necessary to evaluate the extent of the impacts of the discharge of waste on water quality and public health, and to determine the scope of the remedy necessary to cleanup and abate those impacts. The burden, including costs, of the reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Additional evidence in support of requiring these reports can be found in the Regional Board files related to this Site.

CONCLUSIONS

23. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Dischargers to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order could have a significant effect on the environment, the Regional Board, or other lead agency, will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
24. Pursuant to sections 13304 and 13365 of the Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, including public participation.
25. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at

Modified Cleanup and Abatement Order No. R4-2015-0131

http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

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REQUIRED ACTIONS

THEREFORE, IT IS HEREBY ORDERED, pursuant to sections 13267 and 13304 of the California Water Code that the Dischargers shall investigate, cleanup, and abate the effects of waste discharged or deposited at or from the Site in accordance with the following requirements:

1. **Conduct Site Assessment:** Develop, Submit and Implement a Site Assessment Work Plan(s) to Assess, Characterize and Delineate the Extent of Wastes, including PCE, TCE, 1, 1, 1-TCA, and their degradation products as well as toluene, xylene, 1, 4-dioxane and benzene originating at the Site in Soil, Soil Vapor and Groundwater:
 - a. Fully assess and characterize and completely delineate the vertical and lateral extent of wastes onsite and offsite in the soil matrix, soil vapor, and groundwater. The assessment will include VOCs and any other waste constituents that were discharged or deposited at the Site.
 - b. Identify the locations of all waste sources at the Site such as tanks, clarifiers, sumps, piping and other sources, to allow for full assessment of the extent of waste discharged at the Site.
 - c. Include a time schedule for implementation of the work proposed in the Site Assessment Work Plan.
 - d. Upon Executive Officer approval of the Site Assessment Work Plan(s) and time schedule, implement the Site Assessment Work Plan in accordance with the approved schedule. Upon completion of the work, submit a Site assessment report to the Regional Board containing the results, conclusions and recommendations.
 - e. Develop and include a Site Conceptual Model (SCM) in Site Assessment reports submitted to the Regional Board in Site Assessment reports.
 - f. Completion of the Site Assessment may require multiple work plans.
2. **Conduct Remedial Action:** Develop and implement a plan for the cleanup of waste (including PCE, TCE, 1, 1, 1-TCA, and their degradation products as well as toluene, xylene, 1, 4-dioxane and benzene) in the soil matrix, soil vapor, and groundwater and abatement of the effects of only the waste that originated on the Site. Specifically, you shall:
 - a. Develop a comprehensive Remedial Action Plan (RAP) for cleanup of waste that originated on the Site in the soil matrix, soil vapor and groundwater discharged or deposited at the Site and submit it to the Regional Board for review and approval. The RAP shall include, at a minimum:
 - i. Preliminary cleanup goals for soil and groundwater in compliance with State Water Board Resolution 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"). The cleanup levels must be protective of the human health, groundwater and surface water resources, environment and the beneficial uses set forth in the Basin Plan. Alternative cleanup levels to background for groundwater shall not exceed water quality objectives in the Basin Plan. Alternative cleanup levels to background for soil and soil vapor shall not exceed levels that will result in groundwater exceeding water quality objectives in the Basin Plan.
 - ii. Discussion of the technology(ies) proposed for remediation of soil matrix, soil vapor and groundwater.
 - iii. Description of any pilot projects intended to be implemented.

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Modified Cleanup and Abatement Order No. R4-2015-0131

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- iv. Estimation of cumulative mass of wastes to be removed with the selected method. Include all calculations and methodologies used to obtain this estimate.
 - v. A proposed schedule for completion of the RAP.
 - b. Revisions to or additional RAPs may be needed if the implemented remedial measure does not completely achieve all Site cleanup goals.
 - c. Upon Regional Board approval of the Remedial Action Plan(s), you shall implement the RAP in accordance with the approved time schedule.
 - d. You shall submit remediation progress reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B. The remediation progress reports shall document all performance data associated with the operating systems.
- 3. Conduct Human Health Risk Assessment:** Upon assessment and/or implementation of the remedial action at the Site, the Dischargers shall conduct a human health risk assessment (HHRA) using concentrations of chemicals in soil, soil vapor and groundwater at the Site.
- 4. Conduct Groundwater Monitoring:**
- a. Develop a groundwater monitoring program. The Dischargers shall evaluate the groundwater monitoring program previously implemented at the Site and develop a revised plan that includes new and/or replacement wells, installed in accordance with the action required in Requirement No. 1 (page 8). In the evaluation, the Dischargers must consider all pertinent information from each well including, but not limited to, the location of the well, total depth, well construction details, subsurface lithology and groundwater zones, and historical analytical results. The revised groundwater monitoring program must also include a sampling and analysis plan.
 - b. Upon Regional Board approval of the Groundwater Monitoring Program, you shall implement the plans in accordance with the approved time schedule.
 - c. You shall submit Groundwater Monitoring Program reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in the Time Schedule, Attachment B.
 - d. Revision to the Groundwater Monitoring Program may be needed based on the results of groundwater monitoring. The Regional Board may require revisions to and implementation of the revised Groundwater Monitoring Programs, but will consider revisions to the due dates if additional work is needed.
5. Time Schedule: The Dischargers shall submit all required work plans and reports and complete work within the schedule in any approved work plan or RAP and the time schedule listed in Attachment B attached hereto and incorporated herein by reference, which may be revised by the Executive Officer without amending this Order. No such revision will be effective unless made in writing.
- 6 The Regional Board's authorized representative(s) shall be allowed:
- a) Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b) Access to copy any records that are stored under the conditions of this Order;

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- c) Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d) The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
7. Contractor/Consultant Qualification: As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a California registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Dischargers shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals that reflects a license expiration date.
 8. This Order is not intended to permit or allow the Dischargers to cease any work required by any other Order issued by the Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by the Regional Board or any other agency. Furthermore, this Order does not exempt the Dischargers from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
 9. The Dischargers shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the Site and shall provide a 30-day advance notice of any planned physical changes to the Site that may the Dischargers also shall provide a 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
 10. Destruction and abandonment of any groundwater well(s) at the Site must be approved by and reported to the Regional Board at least 30 days in advance. Any groundwater

wells removed must be replaced within a reasonable time, at a location approved by the Regional Board. With written justification, the Regional Board may approve the destruction of groundwater wells without replacement. When a well is destroyed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.

11. In the event compliance cannot be achieved within the terms of this Order, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this Order are denied.
12. Reference herein to determinations and considerations to be made by the Regional Board regarding the terms of the Order may be made by the Executive Officer or his/her designee. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Regional Board.
13. The Regional Board, through its Executive Officer, may amend this Order as additional information becomes available. Upon request by Dischargers, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of Dischargers under this Order without amending the Order. Any such revision must be made in writing to be effective. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
14. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded.
15. Reimburse the Regional Board for reasonable costs associated with oversight of the investigation and cleanup of the waste at or emanating from the Site. Provide the Regional Board with the name or names and contact information for the person to be provided billing statements from the State Water Resources Control Board.
16. The Dischargers shall submit information and take actions addressing public participation requirements of CWC sections 13307.5 and 13307.6 when directed by the Executive Officer.
17. The Regional Board, under the authority given by Water Code section 13267(b)(1), requires you to include a perjury statement in all reports submitted under this Order. The perjury statement shall be signed by a senior authorized representative (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the

information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

18. The State Water Board adopted regulations requiring the electronic submittals of information over the internet using the State Water Board GeoTracker data management system. You are required to upload all reports and correspondence prepared and required by this Order on to the GeoTracker data management system. The text of the regulations can be found at the URL:

[http://www.waterboards.ca.gov/ust/cleanup/electronic reporting/docs/final electronic re
gs_dec04.pdf](http://www.waterboards.ca.gov/ust/cleanup/electronic%20reporting/docs/final%20electronic%20regs_dec04.pdf).

19. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with sections 13268, 13304, 13308, and/or 13350 of the California Water Code, and/or referral to the Attorney General of the State of California.
20. None of the obligations imposed by this Order on Dischargers are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

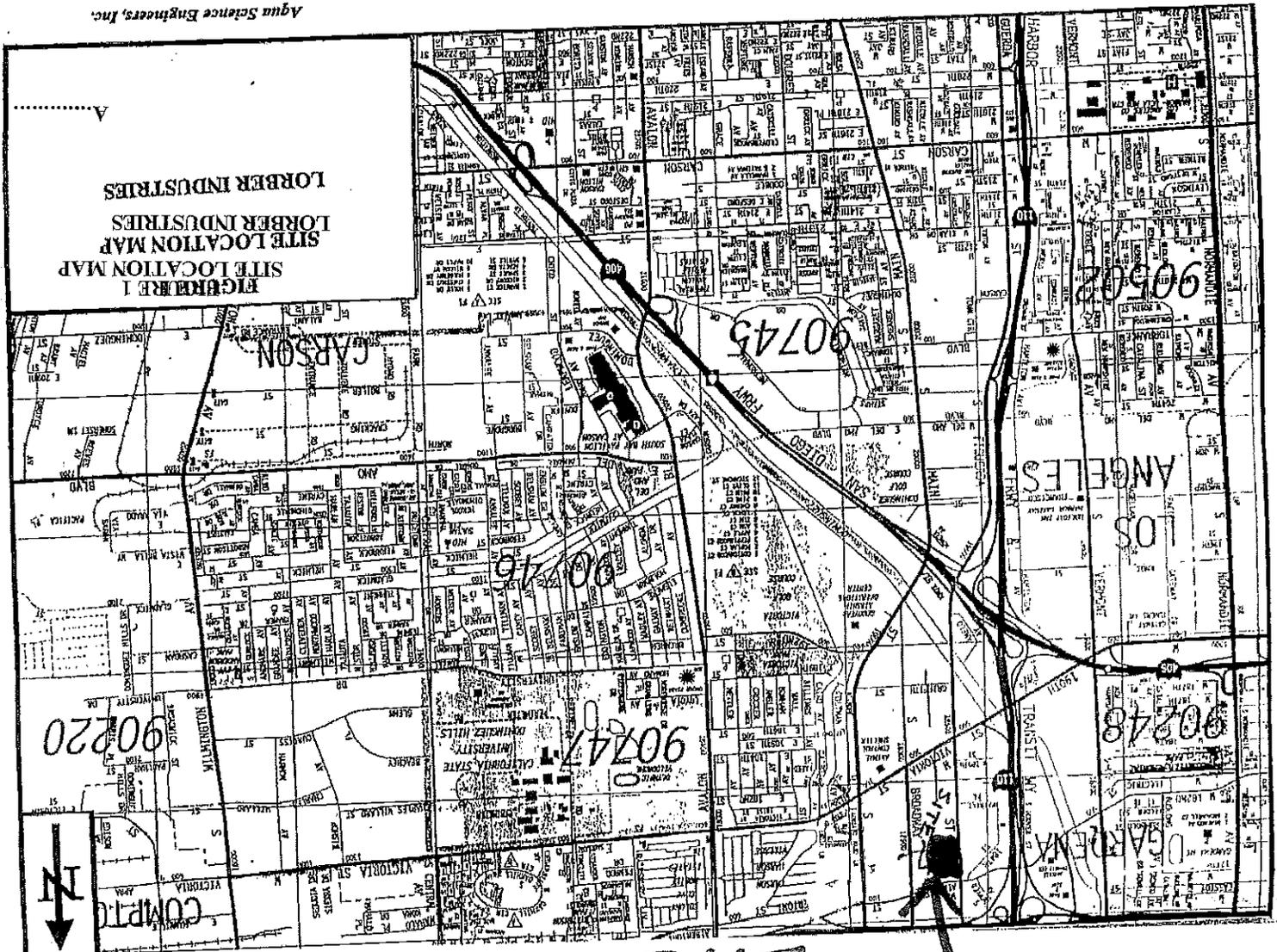
Ordered by
Samuel Unger, P.E. Executive
Officer

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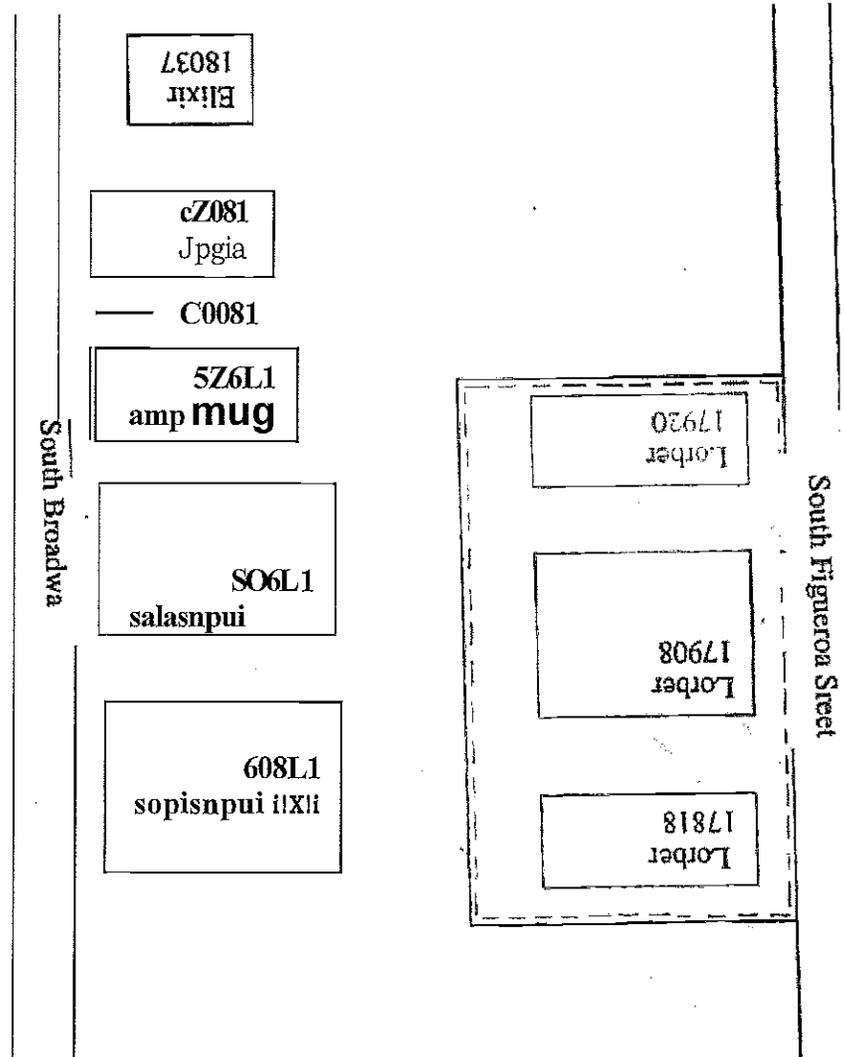
Attachment A

Figures



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Lorber Industries
Site Cleanup Program No. 1056
Cleanup and Abatement Order No. R4-2015-0131

- 14 -

August 12, 2015

Attachment B

Time Schedule

Time Schedule

DIRECTIVE		DUE DATE
1.	Site Assessment Work Plan:	October 15, 2015
1a.	Prepare and submit to the Regional Board a work plan including a schedule for completing delineation of lateral and vertical extent of wastes in soil gas, soil matrix and groundwater onsite and offsite.	According to schedule approved by the Executive Officer
1b.	Implement the Site Assessment Work Plan according to approved schedule.	According to schedule approved by the Executive Officer
1c.	Submit a Site assessment report after the approval of the work plan and its implementation	Within 60 days of receiving directives from the Regional Board.
1d.	Multiple Site Assessment Work Plans may be required to complete assessment of and fully delineate waste discharge	Within 60 days of receiving directives from the Regional Board.
2.	Conduct Remedial Action:	
2a.	Submit a Remedial Action Plan(s) (RAP) for cleanup of wastes in soil, soil vapor and groundwater that includes a time schedule for implementation.	According to schedule approved by the Executive Officer
2b.	Implement RAP.	According to schedule approved by the Executive Officer
2c.	Upon completion of implementation of the RAP, submit a Remedial Action Completion Report.	According to schedule approved by the Executive Officer
2d.	Multiple RAPs may be required to complete assessment of and fully delineate waste discharge	According to schedule approved by the Executive Officer
3.	Conduct Human Health Risk Assessment:	
3a.	Prepare and submit a human health risk assessment considering all waste constituents in the soil matrix, soil gas and groundwater, all exposure pathways and receptors and applying existing regulatory human health screening levels and/or acceptable risk	According to schedule approved by the Executive Officer

	assessment models.	
4.	Conduct Groundwater Monitoring:	October 15, 2015
4a.	Prepare and submit to the Regional Board a Groundwater Monitoring Plan for the Site. Include a Sampling and analysis plan.	According to schedule approved by the Executive Officer.
4b.	Implement the Groundwater Monitoring and Sampling Plan according to approved schedule.	
6.	Public Participation:	According to the schedule approved or specified by the Executive Officer.

ATTACHMENT C

Monitoring and Reporting Program

August 12, 2015

**MONITORING AND REPORTING PROGRAM FOR
CLEANUP AND ABATEMENT ORDER No. R4-2015-0131**

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267 and is part of Cleanup and Abatement Order (Order) No. R4-2015-0131. Failure to comply with this MRP can result in the imposition of civil liability, pursuant to the California Water Code section 13268. All sampling and analyses shall be by USEPA approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

Laboratory analytical reports to be included in technical reports shall contain a complete list of chemical constituents which are tested for and reported on by the testing laboratory. In addition, the reports shall include both the method detection limit and the practical quantification limit for the testing methods. All samples shall be analyzed within allowable holding times. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a State Water Resources Control Board, Division of Drinking Water accredited laboratory.

The Regional Board's Quality Assurance Project Plan, September 2008, can be used as a reference and guidance for project activities involving sample collection, handling, analysis and data reporting. The guidance is available on the Regional Board's web Site at:

http://www.waterboards.ca.gov/rwqcb4/waterissues/programs/remediation/Board_SGV-SFVCleanupProgram_Sept2008_QAPP.pclf

GROUNDWATER MONITORING

Dischargers shall collect groundwater samples from groundwater monitoring wells installed for the purpose of site investigation and monitoring. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled regularly. The groundwater surface elevation (in feet above mean sea level [MSL]) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow.

The groundwater shall be analyzed for all constituents pertinent to the Site such as provided below:

Constituent	EPA Method
Volatile Organic Compounds (full scan)	EPA 8260B
Total petroleum hydrocarbons as gasoline	EPA 8015 modified
Metals	EPA 6010
Hexavalent Chromium	EPA 7199
Ammonium Perchlorate	EPA 314.0
1,4-dioxane	EPA 8270C
N-Nitrosodimethylamine (NDMA)	EPA 1625
Temperature	Field*

pH	Field
Electrical Conductivity	Field
Oxidation-Reduction Potential (ORP)	Field
Turbidity	Field

* To be measured in the field.

REMEDICATION SYSTEMS

Reports on remediation systems shall contain all pertinent information regarding the Site remediation systems:

1. Maps showing location of all remediation wells, if applicable;
2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;
3. The report shall include tables summarizing the operating and performance parameters for the remediation systems; and
4. System inspection sheets shall document field activities conducted during each Site visit and shall be included in the reports

MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to the Order, without amending the Order. Monitoring frequencies may be adjusted or parameters and locations removed or added by the Executive Officer, without amending the Order, if site conditions indicate that the changes are necessary. Any revisions to monitoring requirements or monitoring frequencies must be made in writing to be effective.

REPORTING REQUIREMENTS

1. The Dischargers shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Dischargers shall be deemed to be in noncompliance with the Monitoring and Reporting Program
2. Regular groundwater monitoring reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

Groundwater monitoring reports shall include a contour map showing groundwater elevations at the Site and the groundwater flow direction. The quarterly groundwater monitoring reports shall include tables summarizing the historical depth-to-water, groundwater elevations and historical analytical results for each monitoring well. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Water Board. Field monitoring well sampling sheets shall be completed for each monitoring well sampled and included in the report.

Remediation progress reports shall be submitted to the Regional Water Board according to the schedule.

<u>Monitoring Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

3. Remediation progress reports shall include an estimate of the cumulative mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, any field notes pertaining to the operation and maintenance of the system and, if applicable, the reasons for and duration of all interruptions in the operation of any remediation system and actions planned or taken to correct and prevent interruptions.
4. In reporting the monitoring data, the Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in electronic form in a form acceptable to the Regional Water Board.

Regional Board Response to Comments Received for

Draft Cleanup and Abatement Order R4-2014-XXXX dated September 19, 2014

Comments Due Date: October 20, 2014 extended to December 31, 2014

I-1 to I-10 Comments were prepared by Michael A. Francis of DEMETRIOU, DEL GUERCIO, SPRINGER & FRANCIS, LLP, dated December 31, 2014
II-1 to II-4: Comments from Sahn Broadway Property, LLC prepared by Invitreat, Inc., dated November 6, 2014
INSERT INFORMATION CONSIDERED IN SAHM'S PETITION

No.	Author	Comments	Regional Board's Response
I-1	Michael A. Francis	<i>In this subject case, with respect to groundwater contamination caused by perchloroethylene ("PCE") and its daughter products, the data collected to date is inconclusive as to whether the former Lorber Industries ("Lorber") discharged or released PCE that impacted the groundwater at levels in excess of the 5 ug/L maximum contaminant level ("MCL").</i>	The data collected at the Lorber site indicated the presence of <u>1,1,1-TCA, 1,4-dioxane, toluene, xylene, benzene, PCE</u> and its daughter products at concentrations exceeding their respective MCLs. On Page 5 of comments Michael A. Francis it is stated that <u>on the Lorber Site and not include all VOCs present at the site because they are contaminants migrating from the Elitir Properties".</u> You clearly admit that PCE originate from Lorber site. The Regional Board is aware that Lorber Industries of California filed for Chapter 11 bankruptcy in the court. The Regional Board does not have the final outcome of the bankruptcy proceedings. <u>The Regional Board is aware that Site is currently owned by TGA Carson Properties II, LLC, and TGA Carson Properties, LLC</u>
I-2	Michael A. Francis	<i>As the RWQCB is aware, Lorber is not in a position to undertake the work directed in the Lorber Draft CAO. Lorber filed for and received an order completing its bankruptcy. The final decree closing the bankruptcy was issued by the U.S. Bankruptcy Court for the Central District of California on November 2, 2012. There are no remaining Lorber representatives or Lorber assets that can respond to or otherwise implement the Lorber Draft CAO.</i>	The Regional Board disagrees with this comment. <u>The Discharges are Lorber Industries, Lorber Industries of California, TGA Carson Properties II, LLC, and TGA Carson Properties, LLC.</u>
I-3	Michael A. Francis	<i>We note, however, that TGA's legal name is not TGA Carson Properties I, LLC as the Lorber Draft CAO indicates, but is TGA Carson Properties, LLC. Accordingly, we request that the Lorber Draft CAO be revised to reflect the proper legal name of the current landowner.</i>	The Regional Board disagrees with this comment. <u>The Discharges are Lorber Industries, Lorber Industries of California, TGA Carson Properties II, LLC, and TGA Carson Properties, LLC.</u>
I-4	Michael A. Francis	<i>While the RWQCB may choose to name Lorber in the Lorber Draft CAO because it formerly conducted operations on the Lorber Site, the party performing the actions under a Lorber cleanup and</i>	California Water Code section 13304 authorizes the Regional Board to require any person or entity who caused or permitted, causes or permits, or threatens

Deleted: agrees and will make the correction in the final CAO.

	<p>abatement order for alleged waste discharges originating on the Lorber Site will be the current owner, TGA. We have modified the Lorber Draft CAO to reflect that TGA is not a "discharger" by referring to the parties as "Responsible Parties" instead of dischargers. There is no evidence whatsoever that TGA ever discharged, caused or permitted a discharge of any wastes at the Lorber Site.</p>	<p>cause or permit, any waste to be deposited where it is or probably will be discharged into the waters of the state and creates or will create a condition of pollution or nuisance. The State Water Board has found the following classes of persons to be responsible as either causing or permitting a discharge of waste: (1) owners and operators at the time of discharge; (2) current property owners; (3) interim property owners; and (4) certain lessees of property. TGA Carson Properties LLC and TGA Carson Properties II, LLC are considered responsible parties under Section 13304 because they are the current owners of the properties at which waste discharges are occurring.</p>
<p>1-5 Michael A. Francis</p>	<p>TGA Carson Properties II, LLC, should not be named as a responsible party or a discharger in the Lorber Draft CAO. TGA Carson Properties II, LLC, is the owner of the real property commonly known as 17818 S. Figueroa Street, Carson, California. We recognize that 17818 S. Figueroa St. is included in the definition of "Site" in the Lorber Draft CAO. However, TGA Carson Properties II, LLC, never conducted any industrial operations on any of the properties that comprise the Lorber Site. Further, there is no evidence whatsoever to suggest that TGA Carson Properties II, LLC, was a discharger or contributed to any discharges within the meaning of Section 13304(a) of the Water Code. TGA Carson Properties II, LLC, should not be held to the Discharger? liability as stated in Paragraph 19 of the Lorber Draft CAO. TGA Carson Properties II, LLC, also is not the owner of the real property on which the alleged release of PCE occurred. There is no data that indicates that there was any discharge of waste on the 17818 S. Figueroa property. It is not consistent with RWQCB policy or the Water Code to name the landowner of real property to which contaminants may have migrated. Accordingly, we respectfully request that TGA Carson Properties II, LLC, be removed as a responsible party from the Lorber Draft CAO. We note that documentation regarding the ownership of the subject parcels was</p>	<p>The city cleaning machine was not located at 17818 S. Figueroa Street, Carson, California but the textile operation did occur at this location. Waste discharges are also present at 17818 South Figueroa.</p>

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Deleted: The Regional Board does not oppose referring to TGA as a "responsible party" consistent with the comment, and will make the revision requested.

Deleted: The Regional Board agrees that waste discharges did not originate at 17818 S. Figueroa Street, but that waste has migrated to that property. The Regional Board does not consider TGA Carson Properties II, LLC, as a responsible party for the waste that has migrated under its property so long as it does not exacerbate or add to the problem.

		<i>previously provided to the RWQCB. However, should you desire such documentation, please let us know and we will provide it.</i>	
1-6	Michael A. Francis	<i>Similarly, we believe that the 17818 S. Figueroa property should be excluded from the definition of Site " in the Lorber Draft CAO. TGA Carson Propel des II, LLC, is prepared to provide reasonable access for purposes of completing any required investigations.</i>	The Regional Board uses the term "site" as a short hand, but not as a legal definition. The purpose of the CAO is to require investigation and cleanup of the waste wherever it is located.
1-7	Michael A. Francis	<i>Although the Lorber Draft CAO recognizes that the Elixir Properties have contributed to the presence of contaminants beneath the Lorber Site, and the RWQCB is separately issuing Sahn and Elixir a CAO for the Elixir Properties, the Lorber Draft CAO does not name Sahn or Elixir as responsible parties for the Elixir Properties releases onto the Lorber Site.</i>	Deleted: The Regional Board intends to issue separate CAOs to responsible parties for discharges of waste originating from their respective sites and expects those named parties to clean up the waste wherever it is located. To the extent the wastes discharged from each property has commingled, the Regional Board encourages the responsible parties for each site to coordinate their investigations and cleanups for efficiency reasons and to avoid making either problem worse.
1-8	Michael A. Francis	<i>While the draft CAO to Sahn and Elixir directs them to fully assess and characterize the vertical and lateral extent of wastes onsite and offsite, it does not make it clear that Sahn and Elixir are responsible for investigating fully the extent of the Sahn and Elixir soil and groundwater contaminant impacts to the Lorber Site.</i>	The phrase "to fully assess and characterize the vertical and lateral extent of wastes onsite and offsite" includes assessment on the Lorber site as well as any properties that Lorber's contamination has migrated off of the Lorber site.
1-9	Michael A. Francis	<i>Modify the Lorber Draft CAO to limit TGA and Lorber to investigating that contamination for which evidence indicates Lorber may be responsible only.</i>	Deleted: of any waste originating from the Elixir site that has Deleted: to
1-10	Michael A. Francis	<i>We have also redlined Lorber Draft CAO consistent with these comments. A redlined version is attached as Exhibit C hereto, with deletions shown by striking out the text and proposed insertions shown by underlining.</i>	Deleted: TGA and Lorber Deleted: has made corrections and Deleted: as appropriate
II-1	Inviotreat	<i>Concentrations detected at this location during</i>	The concentrations provided in Section 6.c are historical

11-2	<p>Invirotreat</p> <p><i>June 2001, the last monitoring events, are relatively low (toluene at 1,480 ug/l, xylene at 2,560 ug/l, and TCA at 2,500 ug/l), and much lower than the concentrations presented in Page 3, Section 6.c of the Lorber draft CAO, which are from earlier sampling events.</i></p> <p><i>The numerous other monitoring locations throughout Lorber's property did not detect any toluene, xylene, or TCA, suggesting that despite the southeast to northwest groundwater flow direction, no migration of contaminants from the Elixir plume reached any of the other monitoring locations on the Lorber site. The extensive data collected at the Lorber site since the 1991 clearly shows that the contamination beneath Lorber is exclusively from Lorber's past site operations, primarily the dry cleaning machine. Furthermore, samples taken at deeper water bearing zones did not show any of Elixir's historic chemicals. The chlorinated contaminants which were detected in all three water zones are from Lorber's operations and are the true risk to waters of the state.</i></p>	<p>maximum concentrations.</p> <p>Waste constituents, including benzene, degradation products of 1,1,1-TCA and 1,4-dioxane, were detected in the soil and groundwater on the Lorber property. <u>Lorber's dry cleaning and textile operations are the sources of such contamination.</u></p>	<p>Deleted: The analytical data show that wastes associated with Elixir operations have migrated offsite with groundwater.</p>
11-3	<p>Invirotreat</p> <p><i>The information presented in the draft Lorber CAO regarding the dry cleaning operations at Lorber is inaccurate.</i></p>	<p>The information available to the Regional Board indicates that dry cleaning operations using PCE occurred at Lorber Industries from about 1971 to at least 1987. <u>Information also indicates that Lorber conducted extensive textile operations from 1971 until 2005, which used and discharged 1,1,1-TCA, 1,4-dioxane, toluene, xylene, benzene, as well as PCE and ICE.</u> The use of PCE along with analytical results of soil, soil vapor and groundwater sampling establish that <u>PCE, ICE, 1,1-TCA, 1,4-dioxane, toluene, xylene, and benzene</u> was discharged at the Lorber site.</p>	<p>Deleted: 1 The waste discharges originating from the Elixir and Lorber sites are commingled</p> <p>Deleted: at</p> <p>Deleted: until</p> <p>Deleted: 7</p>
11-4	<p>Invirotreat</p> <p><i>The CAO needs to address the liability and responsibility of Lorber and TGA Carson Properties for the chlorinated plume beneath Schm properties 17925, 17905 and 17809 S Broadway lots.</i></p>	<p>Lorber is responsible for the discharges of wastes originating from Lorber's site.</p>	<p>Deleted: and Elixir are each</p> <p>Deleted: their respective sites</p> <p>Deleted: Where the waste discharges have commingled, the Regional Board recommends that the parties coordinate their investigations and cleanup activities.</p>



EXHIBIT

18

Sahm Broadway Property, LLC

PO Box 1516
Rancho Santa Fe, CA. 92067

November 5, 2014

Ms. Paula Rasmussen
Assistant Executive Officer
Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

RE: Comments Regarding Draft Cleanup and Abatement Order Number R4-2014-XXXX
Elixir Industries – 10837 S. Broadway, Gardena, California 90048 (Site Cleanup No. 0687;
Site ID No. 2042X00)

Dear Ms. Rasmussen,

This letter was prepared in response to the Draft Cleanup and Abatement Order (CAO) issued to Elixir Industries and Sahm Broadway Property, LLC regard 18037 S. Broadway, Gardena, California (Site Cleanup No. 0687; Site ID No. 2042X00).

As expressed in the October 7, 2014 meeting with Dr. Heath and Mr. Siddiqui at the Regional Board office, the purpose and timing of the CAO is not understood, considering that the Elixir Industries Case No. 0687 is active since the mid-1980s. Elixir conducted numerous site investigations in the late 1980s, developed a comprehensive remedial action plan, and, upon approval by the Regional Board proceeded with 15-years of groundwater remediation under Regional Board oversight. Furthermore, the basis for the issuance of the Order is that "dischargers have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state which creates, or threatens to create, a condition of pollution or nuisance." The concern for discharges to the waters of the state is intended to protect the beneficial use of the water. In the case of Elixir's release, the perched water bearing zone impacted by the Elixir release does not have beneficial use. Deeper water zones are not impacted by the Elixir release. Considering the extensive remediation and

Ms. Paula Rasmussen
RWQCB-LA Region

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containment of the Elixir release to part of lot 18025, we believe that the current conditions do not pose risk to the waters of the state. In any event a CAO is inappropriate, inasmuch as the "ball has been in the Regional Board's court" for nearly 8 years with no substantive response from the Regional Board to the Closure Recommendation Report submitted to the Regional Board in January 2007.

Sahm Broadway, the current owner of the property submitted in January 2007 a Closure Recommendation Report, which described the extensive remediation work, the removal of the source of the contamination, and the substantial reduction of the dissolved plume which is contained in a small area under lot 18025 S. Broadway. A health risk assessment was included in the report, justifying low-risk closure of the site. To date, the Regional Board did not provide any comment on the report. If additional work is required to achieve closure, the Regional Board has the obligation to offer comments and allow Sahm Broadway to develop a plan that would move the project towards closure.

As discussed in the Closure Recommendation Report, the major impacts of concern to the groundwater aquifer are from tetrachloroethylene (PCE) impacts from a neighboring facility to the west, Lorber Industries, which is responsible for groundwater contamination from PCE and other chlorinated solvents. Investigation work conducted from 2004-2005 revealed significant discharge of PCE and daughter compounds that has impacted the groundwater beneath Elixir/Sahm Broadway properties. Unlike the historic Elixir release which has been extensively remediated, the Lorber plume has reached the lower water bearing zones, and poses a risk to the Gauge Aquifer, a groundwater source with beneficial use.

The draft Elixir CAO appears to treat this case as a new case, requesting basic site information, such as a Phase 1 site assessment, site investigation work plan, and a remedial action plan, not taking into consideration the extensive site investigation, remediation and monitoring data collected over 22+ years.

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RWQCB-LA Region

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In order to present the correct project information, we included specific corrections on the draft CAO document (shown in yellow highlight), updating the document to address the extensive work completed between 1985 and 2007, the current site conditions, the impacts to the shallow water bearing zone, and the concerns we have about chlorinated solvents impact from a neighboring Lorber facility.

Summarized below are the key comments to the draft CAO.

1. Site Cleanup Case Number 0687 has been assigned to 18037 S. Broadway, Gardena, CA 90048, which was the source of the release from the historic Elixir Industries paint plant operations. The other properties listed at the Order are not the source of the release and therefore should not be included in the aforementioned Case Number and the CAO.
2. Elixir Industries conducted numerous investigations in the late 1980s, developed a remedial action plan in 1990, which was approved by the Regional Board, and conducted site remediation which included removal/closure of the underground storage tanks in 1989, and groundwater remediation between 1992 and 2007 under Regional Board oversight. The CAO should be updated to include all previous work.
3. The description of the Groundwater Basin in the area of the subject site was described in detail in the Remedial Action and Treatment Work Plan (BAS, September 1988): "The study area is directly underlain by the Bellflower Aquiclude is composed of mixed lagoonal clays and fluvial silts. Zones of permeability are discontinuous in this unit and direct communication with the underlying aquifers is limited at best." As shown in the various investigation reports on the subject property from the 1980s and 1990s, a perched water bearing zone exists between 20-30 ft bgs; deeper perched zones are at 50-60 ft and 80-90 ft bgs. The shallow perched water does not have beneficial use, and therefore does not pose risk to the underlying Gauge Aquifer located more than 120 ft bgs. Elixir's release has demonstrated impacts only to the shallow perched zone, and not to the deeper perched water zones.

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RWQCB-LA Region

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4. The evidence of waste discharge is well documented in historic reports and communications with the Regional Board. However, the release has been remediated in several steps including: removal of free product from recovery wells, removal/closure of the 17 underground storage tanks (USTs), and remediation of the impacted groundwater by pump and treat (P&T) system over a 15 year period (1992-2007). The historic release should not be a basis for this CAO, but rather, the Regional Board needs to consider the current conditions post remediation and the health risk assessment, presented in the Closure Recommendation Report (Invirotreat), which was submitted to the Regional Board in January 2007. Chemical data on the contaminants of concern should address recent (post-remediation) conditions and not the plume chemistry during the site investigations in the 1980s.
5. The Elixir/Sahm Broadway properties have been impacted by PCE releases from the adjacent property to the west – Lorber Industries, which have been detected in the groundwater zones beneath the northern Elixir/Sahm properties (lots 17925, 17905 and 17809). These impacts were detected by Lorber in 2004-2005 not just in the shallow perched zone, but also at the deeper water bearing zones. We are extremely concerned about the impacts from Lorber, which may pose a risk to aquifers with beneficial use. The Regional Board must address this deep contamination with Lorber as the liable discharger, and exonerate Elixir/Sahm Broadway from any liability to the chlorinated solvent release.
6. With regard to the Required Actions, the Regional Board should modify the list of requirements, in consideration of the work already performed under their oversight. The requirements should also consider the Closure Recommendation Report (Invirotreat, January 2007), and identify any data gaps and other concerns that require action from Sahm Broadway to bring the Cleanup Case to closure.

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RWQCB-LA Region

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Over the past 29 years, Sahm Broadway and Elixir have been cooperative in investigating and remediating the waste discharge from the historic paint plant at 18037 South Broadway. We identified the PCE contamination issue that impacted our northern properties from the neighboring Lorber Industries operations, and proceeded to remediate the Elixir contamination. While looking for closure of the cleanup case, we are committed to work with the Regional Board to complete this process.

We also ask that the Regional Board actively and efficiently pursues the PCE contamination from Lorber to ensure that the contaminated groundwater beneath the northern properties of Sahm Broadway are being promptly remediated by Lorber.

Sincerely,



Douglas Sahm
Manager

cc: Dr. A. Heath, RWQCB – Los Angeles Region
Dr. A. Lebel, Invirotreat Inc.
Arthur B. Cook, Hill, Farrer & Burrill, LLP

SPECIFIC COMMENTS
ON THE DRAFT CAO DOCUMENT

September 10, 2014



EDWARD G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
DEPARTMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NUMBER R4-2014-XXXX
REQUIRING

SAHM BROADWAY PROPERTY, LLC AND ELIXIR INDUSTRIES

TO ASSESS, CLEAN UP, AND ABATE
WASTE DISCHARGED TO WATERS OF THE STATE
(PURSUANT TO CALIFORNIA WATER CODE SECTIONS 13304 AND 13267)

AT ELIXIR INDUSTRIES
18037 SOUTH BROADWAY, GARDENA, CALIFORNIA 90248
(SITE CLEANUP NO. 0687; SITE ID NO. 2042XOO)

This Cleanup and Abatement Order (Order) is issued to Sahn Broadway Properties LLC and Elixir Industries based on California Water Code sections 13304 and 13267, which authorize the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

The Regional Board finds that:

BACKGROUND

1. Discharger: Elixir Industries and Sahn Broadway Properties, LLC (hereinafter called "Dischargers") are considered responsible parties due to their ownership of the property or the conduct of industrial operations at the Site.
 - a) Elixir Industries operated a paint plant at 18037 South Broadway, Gardena, California (Site) between 1954 and about 1988. Elixir Industries corporate headquarters are currently located in Mission Viejo, California and it continues to operate in various cities throughout the United States.
 - b) Sahn Broadway Properties, LLC is the current Site owner and acquired the Site in 2004.

As detailed in this Cleanup and Abatement Order (Order), Dischargers have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state which creates, or threatens to create, a condition of pollution or nuisance. Numerous site investigations were conducted in the late 1980s, and a remedial action plan was developed in 1990, which was approved by the Regional Board. Site remediation was conducted

which included removal/closure of the underground storage tanks in 1989, and groundwater remediation between 1992 and 2007 under Regional Board oversight.

2. **Location:** The Site is approximately 0.5 mile east of the 110 Freeway and 0.5 mile south of the 91 Freeway in the City of Gardena. Figure 1, Attachment A presents the Site Location Map. The Site consists of the historic paint plant property 18037 South Broadway (APN 7339-006-005), and adjacent properties previously owned and operated by Elixir immediately to the north of 18037 property, including:

17809 South Broadway (LA County Assessor Parcel No. [APN] 7339-006-029)
17905 South Broadway (APN 7339-006-030)
17925 South Broadway (APN 7339-006-007)
18025 South Broadway (APN 7339-006-006)

3. **Groundwater Basin:** The Site is located in the West Coast Basin of the Los Angeles County Coastal Plain. Beneath the Site, the West Coast Basin consists of the Bellflower Aquiclude which extends from the ground surface to an approximate depth of 120 feet below the ground surface (ft bgs). The Bellflower Aquiclude is composed of mixed lagoonal clays and fluvial silts. Zones of permeability (perched water bearing zones) are discontinued in this unit with limited communication with the underlying aquifers. The Gage Aquifer of the Lakewood Formation is located below the Bellflower Aquiclude overlying the Lynwood and Silverado Aquifers of the San Pedro Bellflower Aquiclude. Perched water is found at about 20 feet bgs to 30 ft bgs. Deeper perched water is found at about 50 ft bgs and further at about 80-90 ft bgs. The groundwater flow direction is towards northwest. The perched water bearing zones do not have beneficial use. As set forth in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, and amended from time to time, the designated beneficial uses for groundwater in the West Coast Basin include municipal and domestic drinking water supply (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR).

SITE HISTORY

4. **Site Description and Activities:** The Discharger previously operated a paint manufacturing facility located at 18037 South Broadway Street, Gardena, California that produced paint, lacquer, and glue. Soil and groundwater contamination were found on-site which originated from leaking 17 underground storage tanks and/or associated piping. The USTs were removed and closure of the UST removal was obtained from Los Angeles County Department of Public Works in 1989. The Site is currently leased to: Tru-Form Plastics (17809 South Broadway), Dependable Auto Shippers, Inc. (17905 South Broadway), Performance Mechanical, Inc. (17925 South Broadway), Clean Harbors (18025 South Broadway), and Broadway Victoria, LLC (18037 South Broadway) Figure 2 of Attachment A, attached hereto and incorporated herein, depicts the Site features.
5. **Chemical Usage:** The historic seventeen underground storage tanks (USTs) which were removed/closed in 1989, reportedly containing, lacquer thinner, isopropyl alcohol, 250 paint thinner, 265 paint thinner, 350 paint thinner, butyl acetate, methyl ethyl ketone, 150 butanol, toluene, xylenes, resin, Plas-t-Kote resin, waste solvents, and gasoline were operated between 1954 and 1989 at the Paint Division (18037 South Broadway). A

Chemical Use Questionnaire completed by Elixir Industries indicated that toluene, 2-butanone, butyl acetone, xylene, isophrophyl alcohol, butanol, 250 thinner, 265 thinner, 350 thinner, gasoline, and resin were stored at the Site and used for production. The impacts for these chemicals were significantly reduced over the course of active remediation between 1992 and 2007 under Regional Board oversight.

EVIDENCE OF WASTE DISCHARGES AND BASIS FOR ORDER

6. **Waste Discharges:** In November 1984, Elixir filed an Unauthorized Release Report (URR) in response to pipeline leakage at their Paint Division located at 18037 South

Broadway. Between 1984 and 1990 Elixir conducted numerous groundwater investigation programs that involved the installation of 90 groundwater monitoring/product recovery wells and identification of aqueous and non-aqueous phase liquid (NAPL) plume beneath the properties at 18037, 18025, and 17925 South Broadway. The data collected from environmental investigations conducted at the Site indicate that waste discharges occurred during industrial operations at the paint plant facility as a result of release from the USTs and associated piping. The main contaminants detected in soil, groundwater included: acetone, toluene, total xylenes, ethylbenzene, isopropyl alcohol, 2-butanone (MEK), and 1,1,1-trichloroethane (TCA).

The removal of the USTs in 1989 included excavation and removal of contaminated soil from the paint plant area. In 1992 Elixir's groundwater remediation plant began operating. In 1998-1999 Lorber Industries, who were leasing the 18037 property, constructed a new building on the property and as part of the construction removed a substantial amount of soil from the property, removing essentially all impacted soils from the historic UST release. Elixir continued operating its groundwater remediation system, removing free product, and eliminated the non-aqueous phase during the 15-year operation of the pump & treat remediation system. Thus the source of the UST release was removed. The site was last monitored in 2008, after the cessation of the pump & treat system. Residual aqueous-phase impacts from the historic Elixir contamination were contained to the 18025 lot. December 17, 2007 monitoring event indicated toluene concentrations of 4,600 ug/l, and xylene concentration of 3,130 ug/l, in well MW-65A.

- a) Lots 17925, 17905 and 17809, are west of and immediately adjacent to lots occupied by Lorber Industries at 17818, 17908 and 17920 S. Figueroa Street. facilities that engaged historically with textile and dry cleaning operations. PCE and degradation by-products were detected in monitoring wells at the western boundaries of the above Elixir lots. Following groundwater and soil-vapor investigations by Elixir and information from South Coast Air Quality Management District (SCAQMD), it was determined that the chlorinated solvent contamination of soil and groundwater was caused by Lorber's historical operation of a dry cleaning plant at 17908 S. Figueroa. Site investigations conducted at the Lorber site indicate that PCE has impacted underlying soil and groundwater at Elixir's lots 17925, 17905 and 17809. The Regional Board will also oversee the assessment, cleanup, and remediation of the Lorber site, where limited site assessment and no remediation has been performed. The groundwater cleanup by Lorber is impacting Elixir and must be a priority with the Regional Board to eliminate the true risk to beneficial use aquifers.

7. **Source Elimination and Remediation Status:** In 1989, sixteen USTs were removed and one UST was abandoned in place. Approximately 1,500 cubic yards (yds³) of VOC impacted soil were excavated during the 1989 UST removal and 645 yds³ were transported to a hazardous materials disposal facility. In 1992, a pump and treat (P&T) system was installed and began operation to remove NAPL and to remediate groundwater. The system consisted of 6 extraction wells and an onsite biophysical reactor system. The P&T system discharged approximately 7 million gallons of treated effluent into the Dominguez Channel under NPDES permit, and removed the NAPL (source of the impact), and significantly reduced the extent of the dissolved plume, which, by 2005, was contained to the 18025 property. In January 2007, because of evidence that the P&T system was drawing the chlorinated solvent plume from Lorber's historic dry cleaning operation into the northern Elixir lots (17925 – 17809), the P&T remediation was discontinued. The National Pollutant Discharge Elimination System permit was subsequently terminated in May 2008. Since 2007 no work has been performed related to the environmental condition at the Site.

8. **Summary of Findings from Subsurface Investigations:** The Regional Board has reviewed and evaluated the technical reports and records in its files pertaining to the discharge detection, and distribution of wastes at the Site and the Site vicinity. Elevated levels of chemicals including VOCs and other wastes have been detected in soil matrix, and groundwater beneath the Site. The Regional Board approved in 1990 the remedial action plan from Elixir, and proceeded overseeing the clean-up work from 1992 to 2007, including additional phases of soil-gas and groundwater investigations.
 - a) The concentrations of wastes in soil do not exceed the Tier 1 screening levels such as the United States Environmental Protection Agency (USEPA) Region IX direct contact exposure pathways Regional Screening Levels (RSLs) for commercial/industrial land use. However, the soil matrix data is limited.
 - b) The concentrations of vinyl chloride, benzene and PCE in soil gas exceed the California Human Health Screening Levels (CHHSLs) of 0.0448 µg/L, 0.122 µg/L, and 0.603 µg/L, respectively for commercial/industrial land use posing a potential threat to human health through vapor intrusion into the indoor air. These concentrations were detected close to the western boundary with Lorber, and are associated with contamination caused by Lorber's release of chlorinated solvents.
 - c) The concentrations of toluene, and total xylenes in some groundwater at 18025 lot exceed their respective Environmental Protection Agency, State Water Resources Control Board, Division of Drinking Water maximum contamination levels (MCLs) of 150 µg/L and 1,750 µg/L posing a threat to drinking water resources. These contaminants are isolated to certain area under the building in the above lot and are found at significantly lower concentrations closer to the north area of the lot. The concentration of chlorinated solvents such as PCE, 1,1-DCE, and other contaminants including 1,4 - Dioxane in groundwater exceed the notification level of 1 µg/L established by CDPH, are resulted from chlorinated solvent release by Lorber Industries.

9. **Regulatory Status:** The Regional Board has provided regulatory oversight for the Site under the Regional Board's Site Cleanup Program (SCP) since June 1998. On November 10, 2005 Regional Board staff requested that the Discharger submit a Work Plan for a Deep Subsurface Investigation by January 10, 2006. To date, the Regional Board has not received the work plan. A Groundwater Remediation Program Status Report and Closure Recommendations report were submitted to the Regional Board in January 2007.
10. **Impairment of Drinking Water Wells:** The Regional Board has the authority to require the Discharger to pay for or provide uninterrupted replacement water service to each affected public water supplier or private well owner in accordance with Water Code section 13304. There are no drinking water wells within a mile and more from the Site. Furthermore, the residual contamination from Elixir's release has impacted the upper perched zone only, and not the deeper aquifer.
11. **Sources of Information:** The sources for the evidence summarized above include but are not limited to: reports and other documentation in the Regional Board files, telephone calls and e-mail communication with the Dischargers and their consultants, and Site visits.

AUTHORITY - LEGAL REQUIREMENTS

12. Section 13304(a) of the Water Code provides that:

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, cleanup the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup and abatement order, the Attorney General, at the request of the Board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

13. Section 13304(c)(1) of the California Water Code provides that:

"[T]he person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action."

14. Section 13267(b)(1) of the California Water Code provides that:

"In conducting an investigation ... the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

15. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (Resolution 92-49). Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the "Statement of Policy With Respect to Maintaining High Quality of Waters in California." Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.
16. The Regional Board adopted the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which identifies beneficial uses and establishes water quality objectives to protect those uses. The Site overlies groundwater in the West Coast Basin of the Los Angeles Coastal Plain. The designated beneficial uses of the groundwater beneath the Site are Municipal (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC) and Agricultural Supply (AGR). As noted in paragraph 8:c, the exceedance of the applicable water quality objectives in the Basin Plan constitutes pollution as defined in Water Code Section 13050(l)(1). Wastes detected in groundwater, soil matrix and soil vapor at the Site threaten to cause pollution and nuisance. Note that Elixir's contamination has impacted the shallow perched water bearing zone only, which does not have beneficial use. Lower perched zones were not impacted by Elixir's release.
17. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring the cleanup and remediation of waste in groundwater that is or may be used for domestic purposes, to meet standards designed to protect human health. Elixir's contaminants of concern have impacted only the shallow perch water bearing zone only, and are confined to the water underneath lot 18025, which does not have beneficial use.
18. **Public Participation:** The Regional Board may require the Dischargers to submit a Public Participation Plan or engage in other activities to disseminate information and gather community input regarding the Site, as authorized or required by Water Code sections 13307.1, 13307.5 and 13307.6.

DISCHARGER LIABILITY

19. As described in this Order and the record of the Regional Board, Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have caused or permitted waste, including VOCs, to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. The Dischargers have caused or permitted VOCs to be discharged or deposited where the wastes are, or probably will pose, a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code Section 13304 is appropriate and consistent with the policies of the Regional Board. Elixir's release impacted the shallow water bearing zone only, which does not have beneficial use. Following extensive remediation that took place over a period of 15 years (1992 – 2007), and extensive investigations and monitoring, the source of the release was completely removed, and the dissolved plume underlays isolated area beneath lot 18025.
20. The constituents found at the Site are described in Finding 8 and the Regional Board files related to this Site are actually resulted from chlorinate solvent release from the neighboring Lorber facility at 17908 Figueroa St, Gardena, which operated dry cleaning unit using PCE solvent. Only toluene and xylene are related to Elixir's historic operations, and are isolated to lot 18025. TCA was not detected at the site since 2005. Benzene detection was sporadic at best, and specifically attributed to the Elixir release, and was non-detect in almost all samples taken at the site since 2005. These constituents constitute "waste" as defined in Water Code section 13050(d). The discharge of waste has resulted in pollution, as defined in Water Code section 13050(1). The concentration of wastes in soil and groundwater exceed water quality objectives contained in the Basin Plan, including maximum contaminant levels (MCLs).
21. This Order requires investigation and cleanup of the Site in compliance with the Water Code, the applicable Basin Plan, State Water Board Resolution 92-49, and other applicable plans, policies, and regulations. Sahn Broadway Properties LLC, as the current and Elixir Industries as the former owner and operator of the Site and facilities at the Site are responsible for complying with this Order. The site has been extensively investigated between 1985 and 2007. Extensive remediation effort was undertaken between 1992 and 2007. Most recent data from 2005-2008 clearly demonstrates that the vast majority of the contamination caused by the Elixir release has been removed, and dissolved plume only has been contained in lot 18025. A Closure Recommendation report was submitted in January 2007. Review by the Regional Board and specific requirements – if any, to complete the site clean-up and achieve closure are still pending.
22. This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267. Dischargers are required to submit the reports because, as described in the findings in this Order and the records of the Regional Board, the Dischargers discharged waste and are suspected of having discharged or discharging waste at the Site. The reports are necessary to evaluate the extent of the impacts of the discharge of waste on water quality and public health, and to determine the scope of the remedy necessary to cleanup and abate those impacts. The burden, including costs, of

the reports bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Additional evidence in support of requiring these reports can be found in the Regional Board files related to this Site. Investigation and remediation reports on this project, submitted by Elixir/Sahm are available from about 1987 to 2008. Evaluation of the extent of impact was completed in 1990, and remediation took place from 1992 to 2007. Closure Recommendation report was submitted in January 2007, and review comments and/or approval by the Regional Board are still pending.

CONCLUSIONS

23. Issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Dischargers to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order could have a significant effect on the environment, the Regional Board, or other lead agency, will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan. Investigation and remediation reports on this project, submitted by Elixir/Sahm are available from about 1987 to 2008. Evaluation of the extent of impact was completed in 1990, and remediation took place from 1992 to 2007. Closure Recommendation report was submitted in January 2007, and review comments and/or approval by the Regional Board are still pending.
24. Pursuant to sections 13304 and 13365 of the Water Code, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, including public participation. The site was under cost recovery program since mid-1990s.
25. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

REQUIRED ACTIONS

THEREFORE, IT IS HEREBY ORDERED, pursuant to sections 13267 and 13304 of the California Water Code that the Dischargers shall investigate, cleanup, and abate the effects of waste discharged or deposited at or from the Site in accordance with the following requirements:

1. **Conduct and Submit a Phase I Environmental Site Assessment report:**
A Phase 1 report was submitted to the Regional Board staff on October 7, 2014.
 - a. Conduct a Phase I environmental assessment for the property in accordance with the latest standards applicable, including the USEPA "All Appropriate Inquiry" rule.
2. **Develop, Submit and Implement a Site Assessment Work Plan(s) to assess, Characterize and Delineate the Extent of Wastes in Soil, Soil Vapor and Groundwater:** Delineation of the horizontal and vertical extent of the release from Elixir was completed under Regional Board oversight in 1990. Further investigation to monitor the progress of the remediation and address other issues (such as the Lorber's PCE release) continued through 2007. All investigation work plans and investigations were completed and approved by the Regional Board
 - a. Fully assess and characterize and completely delineate the vertical and lateral extent of wastes onsite and offsite in the soil matrix, soil vapor, and groundwater. The assessment will include VOCs and any other waste constituents that were discharged or deposited at the Site.
 - b. Identify the locations of all waste sources at the Site such as tanks, clarifiers, sumps, piping and other sources, to allow for full assessment of the extent of waste discharged at the Site.
 - c. Include a time schedule for implementation of the work proposed in the Site Assessment Work Plan.
 - d. Upon Executive Officer approval of the Site Assessment Work Plan(s) and time schedule, implement the Site Assessment Work Plan in accordance with the approved schedule. Upon completion of the work, submit a Site assessment report to the Regional Board containing the results, conclusions and recommendations.
 - e. Develop and include a Site Conceptual Model (SCM) in Site Assessment reports submitted to the Regional Board. A SCM was included in the Remedial Action and Treatment Study Report (BAS, 1990) and accepted by the Regional Board.
 - f. Completion of the Site Assessment may require multiple work plans. As previously stated, site assessment was completed in 1985-1990.
3. **Conduct Remedial Action:** Develop and implement a plan for the cleanup of waste in the soil matrix, soil vapor, and groundwater and abatement of the effects of the waste. Specifically, you shall: Remedial Action was submitted and approved by Regional Board in 1990. Remediation took place from 1992-2007, under Regional Board's oversight.

- a. Develop a comprehensive Remedial Action Plan (RAP) for cleanup of waste in the soil matrix, soil vapor and groundwater discharged or deposited at the Site, and submit it to the Regional Board for review and approval. The RAP shall include, at a minimum:
 - i. Preliminary cleanup goals for soil and groundwater in compliance with State Water Board Resolution 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"). The cleanup levels must be protective of the human health, groundwater and surface water resources, environment and the beneficial uses set forth in the Basin Plan. Alternative cleanup levels to background for groundwater shall not exceed water quality objectives in the Basin Plan. Alternative cleanup levels to background for soil and soil vapor shall not exceed levels that will result in groundwater exceeding water quality objectives in the Basin Plan.
 - ii. Discussion of the technology(ies) proposed for remediation of soil matrix, soil vapor and groundwater.
 - iii. Description of the selection criteria for choosing the proposed method over other potential remedial options. Discuss the technical merit, suitability of the selected method under the given Site conditions and waste constituents present, economic and temporal feasibility, and immediate and/or future beneficial use.
 - iv. Description of any pilot projects intended to be implemented.
 - v. Estimation of cumulative mass of wastes to be removed with the selected method. Include all calculations and methodologies used to obtain this estimate.
 - vi. A proposed schedule for completion of the RAP.
- b. Revisions to or additional RAPs may be needed if the implemented remedial measure does not completely achieve all Site cleanup goals.
- c. Upon Regional Board approval of the Remedial Action Plan(s), you shall implement the RAP in accordance with the approved time schedule.
- d. You shall submit remediation progress reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B. The remediation progress reports shall document all performance data associated with the operating systems.
4. **Conduct Human Health Risk Assessment:** Upon assessment and/or implementation of the remedial action at the Site, the Dischargers shall conduct a human health risk assessment (HHRA) using concentrations of chemicals in soil, soil vapor and groundwater at the Site. Human Health Risk Assessment was completed and submitted in the Closure Recommendations Report (Jan 2007).

5. Conduct Groundwater Monitoring:

- a. Develop a groundwater monitoring program. The Dischargers shall evaluate the groundwater monitoring program previously implemented at the Site and develop a revised plan that includes new and/or replacement wells, installed in accordance with the action required in Requirement No. 2. In the evaluation, the Dischargers must consider all pertinent information from each well including, but not limited to, the location of the well, total depth, well construction details, subsurface lithology and groundwater zones, and historical analytical results. Provide an inventory and status of every groundwater well that was installed at the Site. The revised groundwater monitoring program must also include a sampling and analysis plan. In the past, NAPL was present in groundwater at the Site. In the event NAPL is discovered at the Site, Dischargers shall develop a NAPL recovery program and implement at the Site. The NAPL source was removed as part of the remediation system, and no NAPL was detected since the mid 1990s.
- b. Upon Regional Board approval of the Groundwater Monitoring Program, you shall implement the plans in accordance with the approved time schedule.
- c. You shall submit Groundwater Monitoring Program reports to this Regional Board as set forth in the Monitoring and Reporting Program (Attachment C) in accordance with the approved schedule in Time Schedule, Attachment B.
- d. Revision to the Groundwater Monitoring Program may be needed based on the results of groundwater monitoring. The Regional Board may require revisions to and implementation of the revised Groundwater Monitoring Programs, but will consider revisions to the due dates if additional work is needed.
5. Time Schedule: Dischargers shall submit all required work plans and reports and complete work within the schedule in any approved work plan or RAP and the time schedule listed in Attachment B attached hereto and incorporated herein by reference, which may be revised by the Executive Officer without amending this Order. No such revision will be effective unless made in writing. The time schedule is premature. The review of the Closure Recommendation Report and the plan forward
6. The Regional Board's authorized representative(s) shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b. Access to copy any records that are stored under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.

7. Contractor/Consultant Qualification: As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a California registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by Dischargers shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals that reflects a license expiration date.
8. This Order is not intended to permit or allow Dischargers to cease any work required by any other Order issued by the Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by the Regional Board or any other agency. Furthermore, this Order does not exempt Dischargers from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies.
9. Dischargers shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the Site and shall provide a 30-day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, Dischargers also shall provide a 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
10. Destruction and abandonment of any groundwater well(s)¹ at the Site must be approved by and reported to the Regional Board at least 30 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Regional Board. With written justification, the Regional Board may approve the destruction of groundwater wells without replacement. When a well is destroyed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.
11. In the event compliance cannot be achieved within the terms of this Order, Dischargers may request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this Order are denied.
12. Reference herein to determinations and considerations to be made by the Regional Board regarding the terms of the Order may be made by the Executive Officer or his/her designee. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Regional Board.

¹ The condition of existing wells is unknown. Due to activities of tenants, it is possible that some wells are not accessible or functioning.

13. The Regional Board, through its Executive Officer, may amend this Order as additional information becomes available. Upon request by Dischargers, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of Dischargers under this Order without amending the Order. Any such revision must be made in writing to be effective. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
14. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded. The remediation system was removed in 2008 upon numerous notifications to the Regional Board, which acknowledged in 2012 meeting that the system ran its course. No equipment or infrastructure exist at the site. NPDES permit was rescind in May 2008.
15. Reimburse the Regional Board for reasonable costs associated with oversight of the investigation and cleanup of the waste at or emanating from the Site. Provide the Regional Board with the name or names and contact information for the person to be provided billing statements from the State Water Resources Control Board.
16. A Public Participation Plan shall be prepared and/or updated when directed by the Executive Officer as necessary to reflect the degree of public interest in the investigation and cleanup process.
17. The Regional Board, under the authority given by Water Code section 13267(b)(1), requires you to include a perjury statement in all reports submitted under this Order. The perjury statement shall be signed by a senior authorized representative (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations .
18. The State Water Board adopted regulations requiring the electronic submittals of information over the internet using the State Water Board GeoTracker data management system. You are required to comply by uploading all reports required in this Order and correspondence prepared to date on to the GeoTracker data management system. The text of the regulations can be found at the URL:

http://www.waterboards.ca.gov/usUcleanup/electronic_reporting/docs/final_electronic_regs_dec04.pdf.

19. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with sections 13268, 13304, 13308, and/or 13350 of the California Water Code, and/or referral to the Attorney General of the State of California.

20. None of the obligations imposed by this Order on the Dischargers are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

Ordered by: _____
Samuel Unger, P.E.
Executive Officer

Date: _____

EXHIBIT

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July 10, 2015

Via Email & U.S. Mail

Mr. Samuel Unger
Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Re: Response To April 21, 2015 LARWQCB's Letter re: Review Sahn Broadway Property Groundwater Remediation Program Status Report And Closure Recommendations

Site: Elixir Industries Located At 18037 South Broadway, Gardena, California 90248 (Site Cleanup No. 0687 And Site Id. 2042X00)

Dear Mr. Unger:

Thank you for your April 21, 2015 letter reviewing the Sahn Broadway Property Groundwater Remediation Status Report from July 27, 2006 and Closure Recommendation Report from January 29, 2007. On behalf of Sahn Broadway Property, LLC ("SBP"), we take this opportunity to respond to the April letter. SBP has concerns about certain aspects in the April letter as well as the direction of the groundwater remediation project. SBP's technical environmental consultants (e.g. Invirotreat Inc. and The Reynolds Group) have analyzed and are working on the specific issues presented in the letter.

1. EXECUTIVE SUMMARY

Elixir Industries ("Elixir") and SBP have an over 30 year history of voluntary assessment and remediation at SBP's property.¹ Elixir and SBP conducted extensive assessment, which involved the installation of over 90 groundwater monitoring wells, numerous soil samples, and a pump and treat remediation system that successfully operated for 15 years under Los Angeles Regional Water Quality Control Board ("LARWQCB") oversight and approval. Below, we provide documentary evidence that chlorinated hydrocarbons were never used or stored at 17925, 17905 and 17809 South Broadway properties. Historical documents evidence that the

¹ SBP is the owner of the 18037, 18025, 17925, 17905 and 17809 South Broadway properties.

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South Coast Air Quality Management District never inspected these three South Broadway properties. Also, documents demonstrate that Elixir only used solvents at the 18037 South Broadway property – and not at any of the other South Broadway properties. Yet, the April letter states on page 3, item 3, that “according to historical records, two TCA storage tanks were located at the back side of 17925 S. Broadway.” This statement is false and not supported by any evidence (documents or otherwise). Unfortunately, this falsity is the basis for LARWQCB’s assumption that Elixir contributed to the chlorinated solvent contamination in the areas that Lorber Industries (“Lorber”) released such contamination.

During the operation of SBP’s remediation system and following significant efforts by Elixir and SBP, a separate and distinct chlorinated solvent plume was identified at the boundary of the northern SBP property that neighbors Lorber’s property. Lorber is the point source for this separate and distinct plume. Below, we cite to documents and reports that identify the compounds used by Lorber as well as the textile/drycleaning industries to demonstrate that from 1972 to 2005 Lorber used various chlorinated hydrocarbons (including 1, 1, 1-trichloroethane) as well as benzene, toluene, and xylenes, which have contaminated the soil and groundwater. Then, we detail Lorber’s substantial releases of chemicals and wastewater onto the dirt area at the property line with SBP. Thereafter, we highlight a unique topographical feature of SBP’s and Lorber’s properties, which is a substantial low point along the western portion of 17925, 17905, and 17809 South Broadway properties. This low point causes the chemical-laden wastewater (that Lorber negligently allowed to be released onto the dirt area) to migrate to, and accumulated on, SBP’s property, to percolate into subsurface soil and groundwater. Also, Lorber’s significant disposal of wastewater accelerated any vertical migration of Lorber’s chemical wastes that migrated onto SBP’s property. Any further assessment of the deep zone at either SBP’s or Lorber’s properties should be the sole responsibility of Lorber² because of the decades of releases of VOCs by Lorber as well as the significant wastewater disposed from Lorber’s operations that accelerated any vertical migration of VOCs in the soils. Having used significant amounts of PCE and other chlorinated solvents, the impacts to groundwater tend to migrate downwards to lower aquifers, as documented by Lorber’s 2004 sampling work. Consequently, LARWQCB should direct Lorber to perform a complete assessment and implement a remediation system for Lorber’s distinct and separate plume that has impacted, at least, the north west portion of the 17925, 17905, 17809 South Broadway properties.

For over 30 years, Elixir and SBP have cooperatively worked with LARWQCB. SBP looks forward to continuing such cooperation and it appreciates your time and consideration.

² Lorber’s property is currently owned by TGA Carson Properties, LLC, who is now the responsible party.

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2. **ELIXIR INDUSTRIES**

Elixir embodies the American Dream. In 1948, Roland Sahn founded Elixir as a paint and lacquer company. Through the years Elixir was able to expand its business operations beyond paint and epoxy manufacturing to manufacture steel, aluminum and fiberglass parts for mobile homes. From the early 1950s until about 1989, Elixir continuously employed about 300 individuals at its operations on South Broadway in Gardena, California. Elixir provided employment for generations to the local community from the 1950s to the late 1980s. Elixir actively contributed to the community through philanthropic activities, such as the Boys and Girls Clubs, YMCA, Voices for Children, Lux Art Institute, California for the Arts, and Museum of Contemporary Art. In short, Elixir is a friend and vital part of the local community.

A. **THE HISTORY OF ELIXIR'S OPERATIONS**

In the spring of 1954, Elixir began operating on 18037, 18025, 17925, 17905, and 17809 South Broadway, Gardena, California. The business at the 18037 South Broadway property prior to Elixir was a truck repair shop. Documents confirm that Elixir complied with all applicable regulations and permitting requirements during its operations.

Elixir used the 18037 South Broadway property to manufacture paint and epoxy resins from the early 1950s until about 1988. The paint plant stored raw products in 17 underground storage tanks ("USTs"), which were used to manufacture paint and resins. These USTs were located at the western portion of the 18037 South Broadway property. In the spring of 1955, Standard Oil Company supplied Elixir with 9 USTs. Turner Tank Construction of Long Beach may have installed these 9 USTs. In 1960, Standard Oil supplied an additional 6 USTs and Turner Tank Construction may have installed those USTs as well. These 15 USTs were installed at the 18037 South Broadway property. The 18037 South Broadway paint operations included a small office building for administrative work, several buildings and sheds. Also, this location included a sump pump for the wastewater to be transferred to the east of the property to the sewer line on South Broadway pursuant to Elixir's permits. Elixir properly disposed of all wastes pursuant to waste permits or to waste haulers. Sometime in about 1988, Elixir ceased manufacturing paint at this property.

From the early 1950s to about 1989, Elixir's 18025 South Broadway property was used to manufacture screen doors and entry doors for mobile homes. The doors were made of galvanized steel, aluminum, fiberglass, and wood. Sometime in about 1988, Elixir's operations ceased at this location. Elixir never stored any chemicals or liquids at this location. The Coast Air Quality Management District never inspected this location. Elixir never disposed or released of any chemicals or liquids at this location.

From the early 1950s to about 2004, Elixir used the 17925 South Broadway property as its corporate headquarters. During this time period, Elixir would sometimes store parts for mobile homes behind the corporate office building at this location. Elixir never stored or

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disposed of any chemicals at this property any chemicals at this property. The South Coast Air Quality Management District never inspected this property.

From the early 1950s to about 1989, Elixir manufactured roofing and siding sheets for mobile homes at the 17905 South Broadway property. Elixir used galvanized steel, aluminum and fiberglass to make the roofing and siding sheets for mobile homes at this property. Sometime in about 1989, Elixir ceased these operations at this property. Elixir never conducted painting operations at this property. Elixir never conducted any heat treatment at this property. Elixir never stored or disposed of any chemicals at this property. The South Coast Air Quality Management District never inspected this property.

From the early 1950s to about 1980, Elixir manufactured aluminum framed glass windows for mobile homes at the 17809 South Broadway property. From about 1980 to 1989, Elixir used this location to periodically store mobile home product parts, such as sun roofs, glass, roofing and siding sheets. Elixir ceased all operations at this property sometime in about 1989. Elixir used two underground storage tanks to the south of the building at this property. These 2 USTs were used to store gasoline and diesel fuel. Elixir never stored or disposed of any chemicals (other than the gasoline and diesel) at this property. The South Coast Air Quality Management District never inspected this location.

Sometime in 1988, Elixir began shutting down the operations at 18037, 18025, 17925, 17905, 17809 South Broadway properties. Unfortunately, during this process most of Elixir's employees at the 18037, 18025, 17809 Broadway properties were either transferred or laid off. Sometime after 1988, Elixir began leasing the 18037, 18025, 17925, 17905, 17809 South Broadway, properties to various third parties.

In about 1995, Elixir leased the 17905 South Broadway, Gardena property to Lorber. Lorber stopped leasing this property in about 2005. During the entire time of Lorber leased this property, Lorber stored white plastic square tanks containing liquid compounds behind the building at this property. Each of the Lorber tanks had valves at the bottom of the tanks. The tanks were stored directly on the concrete behind the building at this property. Lorber's operations at this location included transfers of these tanks, liquid compounds, and other material, including fabric items, between Elixir's 17905 South Broadway property and Lorber's facilities located next door at 17920, 17908, 17818 South Figueroa Street, Carson.

Sometime in about 1991, Elixir leased the 17809 South Broadway property to Lorber. Lorber stopped leasing this property in about 2004. During the entire time of Lorber leased this property, Lorber used the Elixir 17809 South Broadway property as a storage warehouse. Lorber stored 55-gallon plastic drums containing chemical compounds inside the warehouse on the northside. On a daily basis Lorber transferred these drums, liquids, and other items between the Elixir 17809 South Broadway property and Lorber's facilities.

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During the time Lorber leased the Elixir property until about 2001, there was never a fence separating the Elixir property from Lorber's facilities on Figueroa. Lorber transferred its drums, tanks, chemical compounds, and other materials from the Elixir properties to the west, directly across the dirt strip, to Lorber's facilities on Figueroa.

In 2004, SBP acquired the properties located at 18037, 18025, 17925, 17905, and 17809 South Broadway from Elixir.

B. ELIXIR'S EXTENSIVE VOLUNTARY SITE ASSESSMENT & REMEDIATION

Elixir and SBP combined have over three decades of voluntarily assessment and remediation work at the Broadway property. All such assessment and remediation work was performed in conjunction with regulatory oversight, primarily by LARWQCB, which has been involved since 1988.

In 1990, the LARWQCB agreed that Elixir's property was adequately assessed both vertically and laterally (with over 90 monitoring wells) and the LARWQCB approved Elixir's proposed pump and treat remediation system. Elixir removed the point source features at the property. Elixir's pump and treat remediation system consisted of 6 extraction wells over the entire property (e.g. 18037, 18025, 17925, 17905, 17809 South Broadway) and an onsite biophysical treatment system. Elixir operated this remediation system effectively for fifteen years with LARWQCB oversight. In 2007, SBP developed a Closure Report because the pump and treat remediation system completed the remediation as designed (achieving non-detect results) and the extensive groundwater contamination caused by Lorber was beginning to migrate into the capture zone of SBP's remediation system. Later in 2007, SBP shut down its pump and treat remediation system.

Unfortunately, LARWQCB's website geotracker for SBP's property contains the following inaccurate and troubling statements:

"[t]he complete site history is not included in the Regional Board files. . . . The Site is inactive for last few years due to unwilling work by RP. Apparently RP filed for bankruptcy. Preparation of CAO is in progress. High priority due High VOCs in GW."³

In an effort to memorialize the over three decades of voluntary assessment and remediation work performed by Elixir and SBP in cooperation with LARWQCB – please see Attachment 2, which provides a detailed description of the assessment and remediation work at SBP's Broadway properties. Attachment 2 details SBP's assessment of over 90 monitoring

³ See Attachment 1, screenshot of LARWQCB's website geotracker for SBP's property.

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wells, point source removal of features, installation of a pump and treat remediation system, and operation of that system for 15 years. Also, Attachment 2 demonstrates that SBP's property has a rich history of cooperation, willingness and responsibility – that history must not be ignored or falsified. SBP is perplexed at LARWQCB's statement, to the public, that SBP "filed for bankruptcy." This statement is patently false. Please advise my office of the source of this information and correct this false statement about SBP. Further, samples taken in 2007 and 2008 for volatile organic compounds ("VOCs") at SBP's property (e.g. 17925, 17905, 17809 South Broadway) have been either low or non-detect – thanks to SBP's remediation system. Only portions of the 18025 South Broadway property near the former USTs had higher detections of VOCs, which was limited to the 18025 South Broadway property. Consequently, LARWQCB's statement that its property is "[h]igh priority due to High VOCs in GW" should be changed to reflect the true known conditions at SBP's property.

Fortunately, historical documents demonstrate that Elixir and SBP have spent substantial time and money to voluntarily assess and remediate the soil, vapor, and groundwater contamination over the last three decades. SBP's extensive assessment and remediation work performed at the property was conducted in cooperation with, and with approval from, the LARWQCB.

3. **LORBER INDUSTRIES – 17908, 17920, 17818 SOUTH FIGUEROA, CARSON, CALIFORNIA**

On the other hand, Lorber, and the current owner of Lorber's properties TGA Carson Properties, LLC ("TGA"), have a limited history of assessing its over 5 acre property, despite Lorber's extensive use of chlorinated solvents (including tetrachloroethylene/perchloroethylene ("PCE"), trichloroethylene ("TCE") and 1, 1, 1-trichloroethane ("TCA")) and Lorber's negligent waste discharge operating procedures. The screenshot attached as Attachment 3 of LARWQCB's geotracker website for Lorber's property demonstrates the lack of assessment and remediation, which indicates Lorber's unwillingness to take responsibility for its documented contamination of the soil and groundwater. SBP is surprised and disappointed that LARWQCB has not requested the same action of Lorber as it has of SBP.

Since at least 1972, Lorber (and now TGA) owned and operated textile manufacturing facilities and extensive drycleaning operations at 17920, 17908, and 17818 South Figueroa, Carson, California. Lorber's textile operations included knitting, dyeing and drying of cloth, fabric softeners and printing. Lorber's October 1972 application for a permit from the Air Pollution Control District of the County of Los Angeles ("APCD") indicates that Lorber's operations included about 52 knitting machines, a fabric dryer, a drycleaning unit, and two large steam boilers.⁴ Lorber's operations expanded to the 18037, 17905 and 17809 South Broadway

⁴ Attachment 4, Lorber's APCD permit applications, field reports, and related documents.

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properties. Drums and totes with chemicals were stored by Lorber at 17905 and 17809 South Broadway properties from the early 1990s to 2006.

From at least 1973 to about 2005, Lorber used the 17818 South Figueroa facility to manufacture fabrics. The 17818 South Figueroa facility is currently leased by TGA to a business that operates a business cleaning uniforms.

From at least 1973 to about 2005, Lorber used the 17908 South Figueroa facility to manufacture fabrics and to conduct other textile operations. To the east of the building at this facility, Lorber operated a very large chemical storage tanks and a sewer discharge vault/sump system. Lorber had at least three tall tanks about 12 feet high that contained some type of liquid. These tanks were immediately to the west of Elixir's 17925 and 17905 South Broadway properties. There was a dirt strip between Lorber's tanks and Elixir's property. Lorber stored chemicals and liquids near these tanks on the eastern side of the 17908 Figueroa facility. On multiple occasions throughout the 1970s and 1980s, chemical fluid ran off of the Lorber property and onto Elixir's property at the low topographic area near the property line between the properties. Lorber's chemical fluid would occasionally smell like solvent and would be different colors, including pink. Former Elixir employees witnessed Lorber's release of water with chemicals onto the ground east of the buildings located at 17908 South Figueroa. Witnesses also recalled seeing Lorber's operations result in substantial flooding of Lorber's and Elixir's properties. On the eastside outside the building on the 17908 South Figueroa facility, to the north of the Lorber tank farm, Lorber constructed and operated a large discharge vault, or sump, that connected to the Los Angeles County Sanitation Sewer. The Lorber vault/sump was about 8 feet wide and about 8 feet long. The Lorber discharge vault was connected to an underground sewer line that ran from the vault/sump eastward through Elixir's 17905 and 17809 South Broadway properties to the main sewer system under Broadway.⁵ Releases to the sewer continues from the early 1970s when Lorber began its operations until operations ceased in early 2006. Often a Lorber's chemical fluid would runoff onto Elixir's property. Witnesses have stated that Lorber's runoff often had a strong solvent smell. And frequently, steam would be discharged by Lorber in the same area.

Lorber used the 17920 South Figueroa facility to manufacture fabrics. To the east of the building at this facility, Lorber operated two or three large boilers. These boilers were installed in about 1988.

From 1973 to 2005, Lorber's operations disposed of substantial amounts of wastewater that had a very strong chemical smell behind Lorber's buildings on 17920 and 17908 Figueroa. The source of this waste discharge water was Lorber's operations. Elixir never disposed of any chemicals near this area. Lorber's waste discharge water created large muddy pools along the property line between Lorber's 17920, 17908 and 17818 South Figueroa facilities and Elixir's

⁵ Attachment 5, Figure demonstrating the low point of the properties.

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17925, 17905 and 17809 South Broadway properties. The property line area was dirt and not paved with concrete or asphalt during this time period. This particular area was the low point of all of Elixir and Lorber's properties.⁶ At times, the Lorber's waste discharge water had a strong smell. The Lorber waste discharge water pooled would greatly increase in size after a rain. Sometimes, the Lorber waste discharge water pooled up near the buildings on Elixir's 17925, 17905, 17809 South Broadway, and even down to the south property boundary of 18037 South Broadway.

From about 1991 to about 2005, the Lorber waste discharge water pool remained the same, except Lorber conducted more operations over and through the pool of water because it leased 17905 and 17809 South Broadway from Elixir during this time.

The documents cited below demonstrate that Lorber's drycleaning operations from about 1972 to 1987 used TCA, toluene, benzene, PCE, TCE, and other chemical compounds. And it is important to keep in mind that the biotransformation pathway for PCE is to TCE then to either: trans-DCE or cis-DCE or 1, 1, DCE and then on to vinyl chloride, all such constituents are present in the groundwater beneath Lorber's property. Lorber has made self-serving and unsupported statements that it conducted drycleaning operations until only 1978. However, documents indicate that Lorber conducted drycleaning operations until 1987, as Lorber paid and maintained a permit from the South Coast Air Quality Management District for such drycleaning operations until 1987.⁷ It is important to keep in mind that Lorber also conducted textile operations from at least 1972 to 2005.

Lorber's Material Safety Data Sheets ("MSDS") indicate that Lorber used the following chemicals in its operations: acetone, lacquer thinner (comprised of toluene, methyl ethyl ketone, methyl isobutyl ketone), toluene, Intrawet 8377 (comprised of isopropyl alcohol and dyeing auxiliary), and PCE.⁸ Also, Lorber used a synthetic solvent dry cleaning unit that used PCE as well as a 500-gallon PCE storage tank. PCE was used as one of the cleaning solvents for the dry cleaning machine. The APCD's Field Report dated July 9, 1974 states that Lorber's dry cleaning unit was operated about 2 hours a day five days a week and averaged about 300 gallons per month of solvent "make-up."⁹ Also, Lorber's Field Report concludes that Lorber's unit emitted daily about 186.9 pounds of "solvent."¹⁰

The composition of Lorber's solvent "make-up" is not further described in the documents. Conveniently, Lorber's documents fail to describe the composition of the solvent "make-up" and "solvent" referenced in the documents concerning Lorber's operations. However, several studies of the textile industry indicate the types of chemicals used in operations

⁶ See Attachment 5, Figure demonstrating the low point of the properties.

⁷ See Attachment 4.

⁸ See Attachment 6, Lorber's MSDS.

⁹ See Attachment 4.

¹⁰ See Attachment 4.

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similar to Lorber's operations. As such, we identify below the chemicals and solvents that the textile and drycleaning industries used during the time period Lorber conducted such operations.

In the early 1980s, Dow Chemical marketed TCA as a drycleaning solvent under the name Dowelene LS®.¹¹ TCA was used by drycleaners as a pre-cleaning and spotting agent as well as a carrying agent in fabric waterproofing and in stain repellents.¹² Also, the State Coalition for Remediation of Drycleaners' *Chemicals Used In Drycleaning Operations* January 2002, revised January 2009 report indicates on pages four and five that documented impurities (ranging from 1 to 5%) of PCE used in drycleaning, include: TCA, toluene, carbon tetrachloride, dichloromethane, TCE, and other chlorinated solvents.

TCA, PCE, and TCE were all used in the textile industry for the scouring of wool. TCA and PCE were used cleaning fluids for the removal of spinning oils and lubricants from equipment by textile processors, such as Lorber's 52 knitting machines.¹³ In fact, a report from California's Department of Toxic Substances Control ("DTSC") states: "Cleaning equipment with chlorinated solvents is a common practice in the textile industry. Chlorinated solvents such as PCE, TCA, and TCE are used to remove oil, wax, grease, and lubrication fluids from equipment."¹⁴ DTSC estimated that in the early 1990s, the textile industry in the United States used about 7 thousand metric tons of TCA.¹⁵

It is well documented that benzene, other heavy metals, and formaldehyde were used in the textile industry, specifically dyeing process as a fixing agent. Also, the textile industry used dichlorobenzene as an emulsifying agent in the dyeing of polyester fibers, which was one of the processes performed in Lorber's operations.¹⁶ The United States Environmental Protection Agency's Technical Factsheet on: xylenes in the National Primary Drinking Water Regulations states that textile finishing was one of the major industries that used xylenes in its operations. It is likely that Lorber used xylenes to extract dyes from aqueous solutions as such operations are common in the textile industry.

¹¹ See The Dry Clean Coalition's *A Chronology of Historical Developments in Drycleaning* November 2007 report; see also, Santa Clara Valley Water District's *Study of Potential for Groundwater Contamination from Past Dry Cleaner Operations in Santa Clara County*, by Thomas K.G. Mohr, PG, EG, HG, page 102.

¹² See the State Coalition for Remediation of Drycleaners' *Chemicals Used In Drycleaning Operations* January 2002, revised January 2009 report, pages 7 & 11.

¹³ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership, Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology Division of DTSC, dated June 1991, page 1.

¹⁴ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership, Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology Division of DTSC, dated June 1991, page 31.

¹⁵ See *Source Reduction of Chlorinated Solvents Textiles Manufacture*, by Source Reduction Research Partnership, Metropolitan Water District of Southern California and Environmental Defense Fund for the Alternative Technology Division of DTSC, dated June 1991, pages 1 & 33, Table 2.2.

¹⁶ See *Textile Goods Industry: History and Health and Safety*, Encyclopaedia of Occupational Health and Safety, Chapter 89 Textile Goods Industry by Leon J. Warshaw.

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Given Lorber's documented use and releases of various chemicals from 1972 to 2005, it is not surprisingly that the following VOCs have been detected in soil and groundwater at Lorber's property: PCE, TCE, cis 1, 2-dichloroethylene ("cis 1, 2-DCE"), vinyl chloride, TCA, 1, 1-dichloroethane ("1, 1-DCA"), 1, 1-dichloroethene ("1, 1-DCE"), benzene, toluene, total xylenes, and 1, 4-dioxane.¹⁷

In stark contrast with Elixir and SBP, Lorber has performed very limited assessment work and no soil or groundwater remedial work – despite Lorber's documented use and releases of chemicals from 1972 to 2005.¹⁸

4. TECHNICAL ISSUES TO CONSIDER

The over three decades of voluntary action by Elixir and SBP evidence SBP's willingness to cooperate with LARWQCB. SBP takes this opportunity to highlight three important technical issues that LARWQCB should consider.

First, the existence of a unique topographical feature of a substantial low point along the western portion of 17925, 17905, and 17809 South Broadway and the practical implications of such feature.¹⁹ There are three practical implications of this geographical low point: (1) Lorber's chemical wastewater migrated to, and accumulated on, SBP's property; (2) Lorber's significant wastewater disposed from its large boilers, and other operations, accelerated any vertical migration of Lorber's chemical wastes that migrated onto SBP's property; and (3) the pathways of Lorber's vault/sump along the property boundary with SBP's property, which connects to a sewer line that travels east underground between SBP's 17905 and 17809 South Broadway properties to the sewer main under Broadway.

Second, Lorber's operations from 1972 to 1987 used TCA, PCE, TCE, benzene, toluene, total xylenes, and their breakdown constituents as well as stabilizers (*e.g.* 1, 4-dioxane). As such, Lorber and TGA should be the responsible party for any such contamination at Lorber's property as well as SBP's property, specifically 17905 and 17809 South Broadway at the geographic low point and along the sewer line east to the sewer main under Broadway.

Third, any further assessment of the deep zone at either SBP's or Lorber's properties should be the sole responsibility of TGA because of the decades of releases of VOCs by Lorber as well as the significant wastewater disposed from Lorber's extensive operations that accelerated any vertical migration of VOCs in the soil.

¹⁷ See LARWQCB Draft CAO No. R4-2014-XXXX to Lorber Industries (Site ID No. 2040022), page 3, section 6 and 6(a).

¹⁸ No assessment work has been performed by Lorber since 2004.

¹⁹ See Attachment 5, Figure demonstrating the low point of the properties.

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5. SBP'S REQUESTS TO LARWQCB

In the over thirty years SBP's property has been assessed and remediated, we are not aware of the current case managers of LARWQCB visiting the property. We welcome LARWQCB to SBP's property for a site inspection, which will demonstrate the unique topographic features discussed above as well as the long history of assessment and remediation. If you are interested in an inspection of the property, then will you please contact me to discuss the details?

Sometime following the site inspection, SBP requests an in-person meeting at LARWQCB with case managers and management to discuss the technical issues raised above as well as the specific comments in your April 21, 2015 letter. Additionally, SBP requests that LARWQCB direct Lorber to complete the investigation and conduct all necessary remediation for Lorber's distinct and separate plume that has impacted SBP's property.

Thank you for your time and consideration.

Very truly yours,



Jad Davis
of Kutak Rock LLP

cc:

Mr. Doug Sahm of SBP
Dr. Alon Lebel of Invirotreat Inc.
Mr. Edward Reynolds & Mr. Al Fuan of The Reynolds Group
Dr. Paula Rasmussen of LARWQCB *via* email only
Dr. Arthur Heath of LARWQCB *via* email only
Mr. Adnan Siddiqui of LARWQCB *via* email only

Enclosures

1. Screenshot of LARWQCB's website geotracker for SBP's property.
2. Detailed description of the history of Elixir's and SBP's assessment and remediation work at the SBP property.
3. Screenshot of LARWQCB's website geotracker for Lorber's property.
4. Lorber's APCD permit applications, field reports, and related documents.
5. Figure demonstrating the low point of the properties.
6. Lorber's MSDS.

ATTACHMENT

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STATE WATER RESOURCES CONTROL BOARD
G E O T R A C K E R

ELIXIR INDUSTRIES (SL2042X1546) - (MAP)

[SIGN UP FOR EMAIL ALERTS](#)

18037 SOUTH BROADWAY AVE
GARDENA, CA 90247
LOS ANGELES COUNTY
CLEANUP PROGRAM SITE
PRINTABLE CASE SUMMARY / CSM
REPORT

CLEANUP OVERSIGHT AGENCIES
LOS ANGELES RWQCB (REGION 4) (LEAD) -
CASE #: 0687
CASEWORKER: ADNAN SIDDIQUI

Regulatory Profile

CLEANUP STATUS - DEFINITIONS

OPEN - REMEDIATION AS OF 6/30/2002 - [CLEANUP STATUS HISTORY](#)

POTENTIAL CONTAMINANTS OF CONCERN

PETROLEUM/FUELS/OILS, VOLATILE
ORGANIC COMPOUNDS

POTENTIAL MEDIA AFFECTED

NONE SPECIFIED

FILE LOCATION

BENEFICIAL USE

NONE SPECIFIED

DWR GROUNDWATER SUB-BASIN NAME

Coastal Plain Of Los Angeles - West Coast (4-11.03)

RB WATERSHED NAME

Dominguez Channel (411.01)

Site History

The complete site history is not included in the Regional Board files. The available data indicates that Elixir industrial occupied the site between 1954 and 2005 and operated businesses that produced paint, lacquer, glue, caulking, extruded aluminum products, doors, vents, and plastics. A total of 17 USTs reportedly containing, lacquer thinner, isopropyl alcohol, 250paint thinner, and....In 1984 Elixir filed an unauthorization release report in response to pipeline leakage at the paint division. Regional board has provided regulatory oversight for the site since 1988. The Site is inactive for last few years due to unwilling work by RP. Apparently RP filed for bankruptcy. Preparation of CAO is in progress. High priority due High VOCs in GW.



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In November 1984, Elixir voluntarily submitted an Unauthorized Release Report to the Los Angeles County Sanitation in response to a pipeline leak at its 18037 South Broadway paint plant. As demonstrated by the regulatory record, Elixir has voluntarily cooperated with LARWQCB in conducting extensive assessment and remediation work since day one.

The following is a brief history of the substantial assessment and remediation work performed by Elixir during the last three decades:

- May 8, 1984 – Med-Tox Associates drafted a “Soil Contamination Report,” which included three borings drilled on May 8, 1984 to a depth of 20 feet with samples taken at various depths, topsoil and subsoil samples were analyzed for priority pollutants.
- November 28, 1984 – Elixir voluntarily submitted Unauthorized Release Report to Don Tillman at the Los Angeles County Sanitation.
- December 18, 1984 – Geo-Sec’s “Preliminary Site Evaluation” noting the results of drill hole borings drilled on December 14, 1984.
- Sometime in 1984 – two USTs located under the building canopy on the 18037 South Broadway property were abandon in place.
- February 4, 1985 – Geo-Sec’s “Interim Site Evaluation” documenting the January 11, 1985 construction of 8 monitoring wells, the January 21, 1985 construction of another 12 monitoring wells, another 7 monitoring wells were drilled in this time period at unspecified dates.
- March 11, 1985 – Geo-Sec’s “Monthly Updated Report,” noting water samples were taken from monitoring well numbers 22, 29, 30, 31, and 33.
- May 7, 1985 – Geo-Sec’s “Monthly Updated Report” noting remediation at test holes numbers 14 and 25 by utilizing suction generated by an air-actuated surface mounted diaphragm pump and the drilling of two product recovery wells were drilled.
- June 19, 1985 – Geo-Sec’s “Monthly Updated Report” documenting the drilling of 11 test holes and sampled.
- July 12, 1985 – Geo-Sec’s “Monthly Updated Report” documenting 15 additional test holes were drilled and sampled.
- August 12, 1985 – Geo-Sec’s “Monthly Updated Report” documenting 9 test holes drilled and sampled.
- November 1985 – Geo-Sec’s “Quarterly Updated Report” comparing fluid level maps and reporting on recovery of product from thirty-nine hours of pumping.
- January 2, 1986 – Geo-Sec’s “Remedial Plan Elixir Industries, Inc. Solvent Contaminated Groundwater” noting that in November of 1984, Prime of California detected leaks in piping associated with the USTs and the pump room at the 18037 South Broadway property.
- February 15, 1986 – Geo-Sec’s “Quarterly Updated Report” reporting fluid levels and lack of movement of perched water as well as sampling performed at test hole numbers 22, 30, 31, 61, and 67. This Report also noted that product was recovered during November 1985.
- April 3, 1986 – Bryan A. Stirrat & Associates’ (“BAS”) “Subsurface Remedial Action Plan” submitted to CRWQCB (CRWQCB ID No. 902470025) proposing a three phased approach to remediation: (1) product recovery program; (2) additional field investigation program; and (3) groundwater extraction/treatment program.

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- May 15, 1986 – BAS's "Monthly Status Report" noting the construction of 4 deep monitoring wells completed.
- June 25, 1986 – Geo-Sec's "Update Letter to BAS" commenting on the gradient.
- July 22, 1986 – Geo-Sec's "Update Letter to BAS" commenting on the gradient.
- August 15, 1986 – Geo-Sec's "Update Letter to BAS" documenting construction of 2 new monitoring wells drilled along the western margin of the 1803 South Broadway property and noting the non-detect samples taken.
- January 30, 1987 – Clayton Environmental Consultant's "Site Characterization Report" noting that McKesson Environmental Services ("MES") installed one 8-inch diameter recovery well, three deep zone monitoring wells, and seven shallow zone monitoring wells at the 1803 South Broadway property. This Report notes that 22 Geo-Sec's wells are separated rendering them unusable. The Report includes a regional hydrostratigraphy figure and estimates that the hydraulic conductivity at the 18037 South Broadway property is 0.16 (gpd/ft²). The Report notes that two lithologic cross-sections were constructed based on the core sampling data accompanied with borehole geophysical analyses, which include an aquiclude at depth of 30 to 50 feet below ground surface. Also, the Report concludes that the shallow groundwater appears to be perched with no distinct groundwater flow direction.
- February 7, 1987 – Geo-Sec's "Update Letter to Bryan A. Stirrat & Associates" reporting on sampling of the monitoring wells along the western and eastern (monitoring well numbers 31, 32, 33, 60, 61, & 63) margins of the 18037 South Broadway property with non-detect samples. The letter notes detections in monitoring well numbers 45, 46, 66, and an unnumbered well between 45 and 66.
- February 11, 1987 – BAS's "Status Report Subsurface Remedial Action Plan and Proposed Bailing Program" notes the sampling performed at various monitoring wells. The RAP notes the proposed removal of the USTs and conversion of excavation to a recovery trench with the possible construction of an interceptor trench in the northwest corner of the 18037 South Broadway property. The RAP included a schedule of accelerated bailing of selected wells.
- June 19, 1987 – BAS's "Status Report Subsurface Remedial Action Plan" noting the volume of recovered groundwater pumped from well numbers MCW-4 and PW-1 in 1987.
- July 14, 1987 – Geo-Sec's "Status Report" noting the total volume pumped from MCW-4 since February 1987 and noting sampling performed at MCW-4 and monitoring wells numbered PR-1, 26, 34, 35, 36, 40 and 47 as well as amount of contamination removed from the groundwater.
- August 28, 1987 – Geo-Sec's "Boring Logs" noting samples from boring numbers 69, 70, and 71.
- September 15, 1987 – Geo-Sec's "Boring Logs" noting samples from boring numbers 72 and 73.
- September 28, 1987 – Geo-Sec's "Boring Logs" noting samples from boring number 74.
- May 13, 1988 – Geo-Sec's "Status Report" noting the restoration of RW-1 and that it has been placed back into service. Presentation for the installation of 6 new monitoring wells. Noting the soil samples taken as well as pump draw down test performed in a number of wells.

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- June 7, 1988 – Geo-Sec’s “Addendum to May 13, 1988 Status Report” including a summary of solvent recovery between 1985 and February of 1988 as 3,306 gallons of solvent and 5,228 gallons of wastewater.
- September, 1988 – BAS’s “Remedial Action and Treatment Workplan for the Elixir Industries Manufacturing Facility located at 18037 South Broadway” submitted to the LARWQCB. This Workplan proposed to excavate and remove It was proposed to remove 13 USTs at the 18037 South Broadway property, including 6 – 5,000 gallon, 2 - 10,000 gallon, 1 – 6,000 gallon, and 4 – 2,000 gallon USTs. The Workplan proposed to verify the abandonment of the 2 – 2,000 gallon USTs in place (abandoned sometime in 1984). The Workplan proposed to excavate and backfill to provide future reinjection or extraction area for the groundwater remediation process. The Workplan also proposed to collect soil samples under each tank pursuant to EPA Methods. The Workplan proposed a feasibility study for both the soil and groundwater. And, plans for contaminated groundwater extraction and remedial action plan (extraction and treatment).
- February 1989 – Geo-Sec implemented a well sounding program to verify measurements made and to determine if migration of contaminants was taking place.
- February 13, 14 and 15, 1989 – BAS conducted groundwater sampling of ten wells (DM-1, DM-2, DM-3, MCW-7, MW-3, MW-31, MW-43, MW-61, MW-72, and MW-74).
- March 17, 1989 – BAS notified South Coast Air Quality Management District that it will begin excavating and removing the USTs at the 18037 South Broadway property pursuant to Los Angeles County Department of Public Works, Waste Management Division regulations.
- May 10, 1989 – BAS’s “Results of Soil Sampling of Stockpiles” Report, which discusses the results of the soils samples collected during the removal of the USTs at the 18037 South Broadway property.
- June 1, 1989 – BAS’s “Soil Excavation and Handling UST Removal” Report to the South Coast Air Quality Management District stating that excavation and removal of the USTs pursuant to permit number 18217 is complete.
- June 1, 1989 – BAS’s “Closure Permit #538/B” to the County of Los Angeles, Department of Public Works, Waste Management Division, enclosing a closure report for the removal of 16 USTs at 18037 South Broadway.
- June 5, 1989 – BAS’s “Remedial Action and Treatment Workplan Activity Summary” was submitted to LARWQCB for 18037 South Broadway. In February 1989, extensive groundwater sampling was conducted and the results were reported. 16 of the 17 USTs were properly removed and disposed of pursuant to permits. Water levels were taken bailing programs were instituted at some of the wells.
- 1990 – installed four boundary monitoring wells (S-1, S-2, S-3, and S-4).
- April 1990 – BAS’s “Remedial Action and Treatability Study Progress Report” to LARWQB.
- 1992 – 2 USTs (gasoline and diesel) removed from 17905 South Broadway property and closure obtained.
- April 1992 – Elixir implemented a pump and treat groundwater remediation program at 18037 South Broadway property that continuously extracted between 1,500 to 2,000 gallons per day of contaminated groundwater from various lots on Elixir’s property.
- 1994 – Data indicated a separate and distinct chlorinated plume at western boundary of Elixir’s property.

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- 1995 – Elixir pump and treat system and sampling indicates that free product no longer detected in any of Elixir’s monitoring wells.
- March 17, 1999 – LARWQCB’s letter responding to BAS’s June 5, 1989 “Remedial Action and Treatment Workplan Activity Summary.”
- July 21, 1999 – three wells (MCW-1, MCW-2, and MW-31) were sampled and reported in BAS’s August 11, 1999 report. The surveys covered the entire area of 18905 and 18908 South Broadway. The results were all non-detect for these locations. The western portion of the 17925 South Broadway property was sampled for soil gas vapors.
- July 27, 1999 – BAS’s “Workplan Report – Additional Activities to Achieve Closure of Elixir’s Groundwater Remediation Project” was submitted to LARWQCB. This report notes that between 1992 and 1999, Elixir’s pump and treat system treated about 4,000,000 gallons of contaminated groundwater, achieving non-detects at MW-70 and MW-74.
- August 6, 1999 – BAS meeting with LARWQCB.
- August 11, 1999 – BAS conducted soil gas survey at 18037 South Broadway.
- September 1999 – BAS implemented a vapor extraction system (“VES”) at well MW-26A to enhance the groundwater remediation.
- October 1999 – BAS’s Remedial Action and Treatability Study Pre-Closure Activities Status Report #1 was submitted to the LARWQCB. This Report concludes that the groundwater monitoring data for 18037 South Broadway indicates that the majority of this property is clean of groundwater contamination. Soil-gas investigation confirmed that lots 18905 and 18908 South Broadway are clean of groundwater contamination as the probes indicated non-detect. Contamination may exist at the southwest corner of 17925 South Broadway and around S-1 and S-2 next to Lorber’s tank field. This report suggests that the source of such contamination is not from Elixir.
- February 4, 2000 – LARWQCB letter to Elixir suggesting a workplan be drafted to conduct further groundwater investigation in the northwestern boundary between S-1 and S-2.
- February 18, 2000 – BAS’s “Groundwater Investigation Workplan – Northwest Boundary Elixir Industries – Remedial Action and Treatability Study – Pre-Closure Activities” Report was submitted to the LARWQCB. This Workplan proposes 5 to 8 hydropunch probing between SV-13 and S-2.
- March 2000 – Invirotreat, Inc. conducts hydropunches at 17925, 179-5 and 17809 South Broadway. Hydropunch sampling indicates chlorinated solvent contamination at western property line of 17905 South Broadway due to Lorber’s tank field.
- May 8, 2000 – BAS’s Groundwater Investigation At Northwest Boundary of Elixir Industries, Report of Findings, Remedial Action and Treatability Study to LARWQCB.
- July 26, 2005 – Invirotreat, Inc.’s “Groundwater Monitoring And Reporting Program No. 7104, Semi-Annual Report for 2005” to LARWQCB.
- November 10, 2005 – LARWQCB letter regarding potential impact to deeper zones.
- January 25, 2006 – Meeting with Invirotreat, Inc. and LARWQCB to discuss overview of groundwater remediation and discuss LARWQCB’s November 10, 2005 letter.
- July 27, 2006 – Invirotreat Inc.’s Sahn Broadway Property Groundwater Remediation Program Project Summary Report submitted to LARWQCB.
- January 2007 – Invirotreat, Inc.’s “Closure Recommendation Report submitted to LARWQCB.

ATTACHMENT

2

- July 14, 2008 – Invirotreat, Inc.’s Remedial Action and Treatability Study Quarterly Report for April-June 2008.
- September 10, 2014 – LARWQCB’s “Draft Cleanup And Abatement Order Number R4-2014-XXX” demanding that Elixir: (1) conduct a Phase I Environmental Site Assessment Report; (2) Develop and Implement a Site Assessment Work Plan to Assess, Characterize and Delineate the Extent of Wastes in Soil, Soil Vapor and Groundwater, including six sub-parts; (3) Conduct Remedial Action, including four sub-parts; (4) Conduct Human Health Risk Assessment; and (5) Conduct Groundwater Monitoring, including four sub-parts.
- November 5, 2014 – Sahn Broadway Property, LLC’s Comments Regarding Draft Cleanup and Abatement Order submitted to LARWQCB.
- December 31, 2014 – Michael Francis’s Comments Regarding Draft Cleanup and Abatement Order submitted to LARWQCB.
- April 21, 2015 – LARWQCB’s “Review of Sahn Broadway Property, LLC’s Groundwater Remediation Program Status Report and Closure Recommendations.”

ATTACHMENT

3

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

LORBER INDUSTRIES (SLT43689687) - (MAP)

[SIGN UP FOR EMAIL ALERTS](#)

17908 S. FIGUEROA ST
 GARDENA, CA 90248
 LOS ANGELES COUNTY
CLEANUP PROGRAM SITE
[PRINTABLE CASE SUMMARY / CSM](#)
[REPORT](#)

CLEANUP OVERSIGHT AGENCIES
 LOS ANGELES RWQCB (REGION 4) (LEAD) -
 CASE #: 1056
CASEWORKER: ADNAN SIDDIQUI

Regulatory Profile

CLEANUP STATUS - [DEFINITIONS](#)

OPEN - SITE ASSESSMENT AS OF 5/17/2001 - [CLEANUP STATUS HISTORY](#)

POTENTIAL CONTAMINANTS OF CONCERN

NONE SPECIFIED

POTENTIAL MEDIA AFFECTED

NONE SPECIFIED

FILE LOCATION

BENEFICIAL USE

NONE SPECIFIED

DWR GROUNDWATER SUB-BASIN NAME

Coastal Plain Of Los Angeles - West Coast (4-11.03)

RB WATERSHED NAME

Dominguez Channel (411.01)

Site History

No site history available

ATTACHMENT

4



PERMIT TO OPERATE

P 57686

APPLICANT

Operation under this permit must be conducted in compliance with all data and specifications included with the application under which this permit is issued. The equipment must be properly maintained and kept in good operating condition at all times.
In accordance with Rule 10(c), this Permit to Operate must be posted on accessible.

LEGAL OWNER OR OPERATOR: **LEWIS INDUSTRIES OF CALIFORNIA**

EQUIPMENT LOCATED AT: **27908 COUTH FIGUEROA STREET GARDENA, CALIFORNIA**

EQUIPMENT DESCRIPTION AND CONDITIONS: **SYNTHETIC SOLVENT DRY CLEANING UNIT, BOILER & WEEPER RO MASHINEY PABRICE AUGSEURS, MODEL 57100 SERIAL NO. 248/7106.**

APPROVAL

This permit does not authorize the emission of air contaminants in excess of those allowed by Division 20, Chapter 2, Article 3, of the Health and Safety Code of the State of California or the Rules and Regulations of the Air Pollution Control District. This permit cannot be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies.

AIR POLLUTION CONTROL OFFICER

[Signature]

DATE: **AUGUST 18, 1971**

VOID UNLESS VALIDATED
43600

DO NOT REMOVE CARBONS OR SEPARATE
Three white copies must be submitted.
Yellow copy should be retained by applicant.

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013 MADISON 9-4

APPLICATION FOR AUTHORITY TO CONSTRUCT AND PERMIT

RECEIVED
 OCT 24 12 22 PM '72
 L.A. COUNTY
 AIR POLLUTION CONTROL DISTRICT

APPLICATION INSTRUCTIONS

- USE ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF BASIC EQUIPMENT AND ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF AIR POLLUTION CONTROL EQUIPMENT. CALL WA 4-4311, EXT. 2416, FOR ASSISTANCE.
 - A \$40 FILING FEE MUST ACCOMPANY EACH APPLICATION. IN BIG FILING THE FEE WILL BE ACCEPTED FOR A CHANGE OF OWNERSHIP APPLICATION WHERE NO ALTERATION, ADDITION OR CHANGE OF LOCATION HAS OCCURRED. THE TOTAL FILING FEE, WHICH WILL EXCEED THE \$40 FILING FEE, MUST BE PAID BEFORE PERMIT TO OPERATE CAN BE GRANTED. MAKE CHECK OR MONEY ORDER PAYABLE TO: AIR POLLUTION CONTROL DISTRICT, COUNTY OF LOS ANGELES.
 - EACH APPLICATION MUST BE FILLED OUT COMPLETELY AND FILED IN TRIPLICATE. ACCOMPANYING PLANS MUST BE IN DUPLICATE.
 - EACH APPLICATION MUST BE SIGNED BY A RESPONSIBLE MEMBER OF THE ORGANIZATION THAT IS TO OPERATE THE EQUIPMENT.
- INCOMPLETE APPLICATIONS NOT ACCEPTABLE

1A. PERMIT TO BE ISSUED TO:

LOMBER INDUSTRIES OF CALIF.
BUSINESS LICENSE NO. OF ORGANIZATION THAT IS TO RECEIVE PERMIT

1B.

ARNOLD LOOPER

NAME (OR NAME) OF OWNER OR PRINCIPAL PARTNER OR BUSINESS AS (ADD) ABOVE ORGANIZATION

2A. MAILING ADDRESS:

17908 S. FIGUEROA GARDENA CALIF.
NUMBER STREET CITY OR COMMUNITY STATE

2B.

40748
ZIP CODE

3A. EQUIPMENT LOCATION ADDRESS:

17908 S. FIGUEROA GARDENA 40748
NUMBER STREET CITY OR COMMUNITY ZIP CODE

3B.

FIG. PART 218
NEAREST INTERSECTION STREET

4. EQUIPMENT DESCRIPTION.

APPLICATION IS HEREBY MADE FOR AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:

ONE DRY CLEANING SYSTEM.

BOILER & WEAVER W.G. MACHINES FABRICH AUGSBURG

MODEL 57100, SER NO 247100 WITH 47.48 H.P. DRIVE MOTOR

5. IF THIS EQUIPMENT HAD A PREVIOUS OPERATING PERMIT, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL OWNER THAT OPERATED THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.

6. (N/A)

N/A

PREVIOUS PERMIT NUMBER

6. PERMIT APPLICATION REASON:

- 16 NEW CONSTRUCTION 1
 ALTERATION 2
 CHANGE OF LOCATION 3
 CHANGE OF OWNERSHIP 4

7. TYPE OF ORGANIZATION:

- 17 CORPORATION 1
 PARTNERSHIP 2
 INDIVIDUAL OWNED 3
 GOV'T. AGENCY 4

8. ESTIMATED COST OF EQUIPMENT OR ALTERATION:

AIR POLLUTION CONTROL EQUIPMENT BASIC EQUIPMENT
40,000

9. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, GIVE THE

ESTIMATED STARTING DATE

ESTIMATED COMPLETION DATE

10-15-1972

10. GENERAL NATURE OF BUSINESS:

TEXTILE PROCESSING (KNITTING DYEING & FINISHING)

11. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:

Ambros Dragotjevic

13. OFFICIAL TITLE OF SIGNER:

PLANT MGR.

12. TYPE OR PRINTED NAME OF SIGNER:

AMBROS DRAGOTJEVIC

14. DATE:

10-18-1972

15. PHONE NUMBER:

321-8450

ST. LIST NO. 2-6

VLT NO. 7-14

ALPHA LIST: 71-74

TS NO.: 74-70

CLASS: 1 2 3

ASSIGNMENT: 19-20

WORK UNITS: 21-24

APPLICATION NO.: 31-36

EQUIP. CAT. NO.: 38-45

TYPE: 46

VALIDATION 25-29 (11)

W09458 OCT 25 72 1 A 40.00

40.00 \$ # 1127

APPLICANT USE ONLY

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
 434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013. MADISON 9-4711

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA				DATE OF INSPECTION 7/9/74	
MAILING ADDRESS 17908 South Figueroa ^{STREET} Avenue, Gardena, California 90248				PERMIT APPL. NO. A-73978	
EQUIPMENT LOCATION (ADDRESS) BRNO				A.P.C.D. YORK NO. CN	
REASON PERMIT IS REQUIRED:	NEW CONSTRUCTION (X)	CHANGE OF OWNERSHIP ()	CHANGE OF LESSEE ()	CHANGE OF LOCATION ()	EQUIPMENT ALTERATION ()
DATE CONSTRUCTED:	BY	TIME SPENT	FROM	TO	
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT:	2 hrs/day, 5 days/week				
OPERATOR	VINYL	ESTIMATED COST	BASIC EQUIPMENT	A.P.C. EQUIPMENT	
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: Ambros Dragojevic, plant manager					
PLA DUST & FUME PROBLEMS ONLY:	PROCESS WEIGHT (S)	LOS. /HR.	ALLOWED LOSSES:	LOS. ESTIMATED /HR.	LOS. /HR.
OFFICIAL EQUIPMENT DESCRIPTION, CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS:					

APPLICATION NO. A-73978:

SYNTHETIC SOLVENT DRY CLEANING UNIT, BOHLER & WEBER KG MASHINEN FABRIK AUGSBURG, MODEL SJ100, SERIAL NO. 248/7106.

BACKGROUND:

This application is required for equipment which is new construction.

The equipment was found to be located as shown on the drawing in this application.

DESCRIPTION OF THE PERMIT UNIT:

The dry-cleaning system is one permit unit since all of the equipment is interconnected by pipes or hoses for the flow of solvent.

OBSERVATIONS:

During the investigation, the following equipment was observed in actual operation: the complete dry-to-dry ^{UNIT} system.

No solvent odors were detected in the immediate vicinity of the dry-cleaning equipment. No odors were detected outside of the building housing the equipment. No visible emissions were observed from any of the equipment or the exhaust vents. Mr. Ambros Dragojevic stated that the equipment is operated an average of 2 hours per day, 5 days per week. Solvent make-up to the system averages 300 gallons per month. The average daily solvent loss to the atmosphere would, therefore, be 186.9 pounds.

RECOMMENDED DISPOSITION: (X) APPROVE FOR PERMIT. () APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW. () HOLD, SEE EXPLANATION BELOW. () DENY PERMIT.

REVIEWING ENGINEER:

(X) I CONCUR WITH RECOMMENDATIONS
 () I DO NOT CONCUR WITH RECOMMENDATIONS
 () SEE COMMENTS ON ATTACHED PAGE

SIGNATURE

David E. Schuion

David, E. Schuion, A. P. Engineer

PAGE 1 OF 2 PAGES

16-50D106 A8-5553

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA	APPL. NO. A-73978	DATE OF INSPECTION 7/9/74
--	----------------------	------------------------------

CONCLUSIONS AND RECOMMENDATIONS:

The operation of this equipment is not expected to violate any of the Rules and Regulations. Specifically, no visible emissions to violate Rule 50, or particulate emissions to violate Rule 52 are expected to occur. The low intensity and volume of odors emitted are not expected to cause a public nuisance in violation of Rule 51 at this location. The solvent used is perchloroethylene which is specifically exempt in Rule 66,1,4. A permit to operate the dry cleaning equipment is recommended. There is no condition necessary on the permit.

En:7/9/74

SIGNATURE *David E. Schwien*

David E. Schwien, A. P. Engineer

NOTICE TO APPLY FOR APCD PERMIT

FIRM NAME (DBA): LOBSTER INDUSTRIES OF CALIFORNIA	PHONE: ---
OWNERSHIP: MR. ARMAND LOEBER	INSTALLING CONTRACTOR: ---
MAILING ADDRESS: 17008 S. FIGUEROA ST. 90243	MAKING APPROX: ---
EQUIPMENT ADDRESS: SAME	PROJECT: ---

YOU ARE HEREBY NOTIFIED THAT PURSUANT TO SECTION 24279 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA A MISDEAMEOR HAS BEEN COMMITTED THROUGH THE (BUILDING, ERECTING) ALTERATION, REPLACING, USING, OR OPERATION OF 216 DAY WASHING SYSTEM; BOILER & WATER LG MACHINERY AVANGARD, Model 5100, Ser. No. = 45/7106 with 47.48 H.P. DRIVE MOTOR

WITHOUT AN AIR POLLUTION CONTROL DISTRICT PERMIT SO TO DO, IF AN APPLICATION FOR THE ABOVE EQUIPMENT HAS NOT BEEN ACCEPTED BY THE AIR POLLUTION CONTROL DISTRICT WITHIN 14 CALENDAR DAYS OF THE DATE OF SERVICE OF THIS NOTICE, A MISDEAMEOR COMPLAINT MAY BE FILED IN A MUNICIPAL COURT IN THE COUNTY OF LOS ANGELES.

SERVED TO: MR. ARMAND LOEBER TITLE: P.T. MGR. NAME: RALPH E. GEORGE
 SERVED BY: JOHN SCHULZ DATE SERVED: 10/16/72 DIRECTOR OF ENFORCEMENT

THE FOLLOWING FORMS ARE LEFT HEREAFTER.

APPLICATION FORMS 400A PERMIT INFORMATION, 400B PERMIT INSTRUCTIONS, 400C 400

REASON PERMIT REQUIRED:	<input checked="" type="checkbox"/> NO PRIOR PERMIT <input type="checkbox"/> ALTERATION <input type="checkbox"/> OWNER CHANGE <input type="checkbox"/> FREQUENT CHANGE	APCD - USE #:
NAME OF PRIOR PERMITTEE:	<u>D.N.A.</u>	<u>U11114931</u>

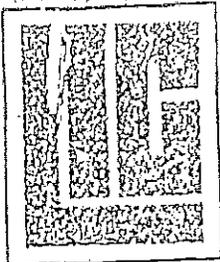
SECTION 1. COMPLETE THIS SECTION EACH TIME A NOTICE IS SERVED.		DATE OF INSPECTION: <u>10-16-72</u>	
ESTIMATED % COMPLETE: <u>100%</u>	HAS EQUIPMENT IN OPERATION: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	APCD USE #:	U. I. P. A. C.
COMPLETION DATE: <u>8/72</u>	EQUIP. IS: <input checked="" type="checkbox"/> BASIC <input type="checkbox"/> COMPLEX	LINE COST:	BASEL. EQUIP. \$: _____
IF FOR CONTROL EQUIP. PERMIT STATUS OF BASIC: <u>D.N.A.</u>		APCD. EQUIP. \$: _____	
IF ALTERATION, BRIEFLY DESCRIBE CHANGE: <u>D.N.A.</u>			

PROCESS DESCRIPTION & FINDINGS (NOTICE EVALUATION, POSSIBLE VIOLATIONS, NOTES, ETC.)

THIS COMPANY, FORMERLY SOFT KNITTING MILLS, IS SETTING UP A NEW PLANT CONSISTED OF 32 KNITTING MACHINES, A FABRIC DYE, A DYECLEANSING UNIT, AND TWO LARGE 250 HP STEAM ENGINES. AT THIS TIME THE PLANT IS IN ABOUT 30% OPERATION, YET TO BE COMPLETED. LARGE KNITTING ROOM - NORTH 1/2 OF PLANT, GREEN, AFTER DYE, 2ND BOILER. UNIT IN QUESTION USES PERCHLOROETHYLENE - NO COORS OF "PCC" NOTICED AROUND UNIT WHILE IN OPERATION. PLANT SHOULD BE IN FULL OPERATION IN 1 TO 2 MONTHS.

EQUIPMENT MAY VIOLATE SECTION 24243	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	RECOMMENDED FOR PERMIT AND <input checked="" type="checkbox"/> YES <input type="checkbox"/> OTHER
ENGINEERING FINAL ACCOMPLISHED:	<input checked="" type="checkbox"/> NO - 1 <u>ENGE DEPT.</u>	<input type="checkbox"/> YES - SEE SECTION 2
SECTION 2. TO BE COMPLETED ONLY IF ENGINEERING FINAL ACCOMPLISHED. IN ADDITION, COMPLETE APPROPRIATE SECTION A, B OR C ON REVERSE. USE SEPARATE FORM FOR EACH FINAL.		
WIND	<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	WEATHER
	<input type="checkbox"/> CLEAR	<input type="checkbox"/> OVERCAST
	<input type="checkbox"/> RAIN	<input type="checkbox"/> OTHER, EXPLAIN:

10814229



LORBER INDUSTRIES CALIFORNIA INC.

January 30, 1987

Customer Service Section
South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

RE: Expiration of Permit #P57686

A 73978

Dear Sir,

Please be advised that we no longer have a dry cleaning machine or perchlorethylene on our premises, and do not wish to renew the applicable permit.

Thank you for your assistance.

Sincerely,

Robert R. Dalziel
Controller

RRD:jp

LORPRINT / LORBER INDUSTRIES INTERNATIONAL

EXECUTIVE OFFICES: 17008 SOUTH FIGUEROA STREET, GARDENA, CALIFORNIA 90248 / (213) 321-8450 / TWX 9103466300 / FAX (213) 538-1286



PERMIT TO OPERATE

P 57686

Operation under this permit must be conducted in compliance with all date and specifications included with the application under which this permit is issued. The equipment must be properly maintained and kept in good operating condition at all times.
In accordance with Rule 10(c), this Permit to Operate must be posted or accessible.

Appl. No. A-73978

LEGAL OWNER
OR OPERATOR:
LUMBER INDUSTRIES OF CALIFORNIA

EQUIPMENT
LOCATED AT:
17908 COUTH FIGUEROA STREET
GARDEN, CALIFORNIA

EQUIPMENT
DESCRIPTION
AND
CONDITIONS:
SYNTHETIC SOLVENT DRY CLEANING UNIT, BOILER & WEEPER RO MASHREH PABRICK ADGEBOURG,
MODEL 851000 SERIAL NO. 248/7106.

This permit does not authorize the omission of air contaminants in excess of those allowed by Division 20, Chapter 2, Article 3, of the Health and Safety Code of the State of California or the Rules and Regulations of the Air Pollution Control District. This permit cannot be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies.

AIR POLLUTION CONTROL OFFICER

[Signature]

DATE: AUGUST 2, 1971

VOID IF BUSINESS VALIDATED A 36000

DO NOT REMOVE CARBONS OR SEPARATE
Three white copies must be submitted.
Yellow copy should be retained by applicant.

AIR POLLUTION CONTROL DISTRICT - COUNTY OF LOS ANGELES
434 SOUTH SAN PEDRO STREET, LOS ANGELES, CALIF. 90013 MADISON 9-4

APPLICATION FOR AUTHORITY TO CONSTRUCT AND PERMIT

RECEIVED
OCT 24 12 29 PM '72
L.A. COUNTY
AIR POLLUTION
CONTROL DISTRICT

APPLICATION INSTRUCTIONS

- A. USE ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF BASIC EQUIPMENT AND ONE APPLICATION FORM 400-A FOR EACH PERMIT UNIT OF AIR POLLUTION CONTROL EQUIPMENT. CALL WA 4-4111, EXT. 24104 FOR ASSISTANCE.
 - B. A \$40 FILING FEE MUST ACCOMPANY EACH APPLICATION. THE \$40 FILING FEE WILL BE ACCEPTED FOR A CHANGE OF OWNERSHIP APPLICATION WHERE NO ALTERATION, ADDITION OR CHANGE OF LOCATION HAS OCCURRED. THE TOTAL FILING FEE WHICH MUST ACCOMPANY THE \$40 FILING FEE, MUST BE PAID BEFORE PERMIT TO OPERATE CAN BE GRANTED. MAKE CHECK OR MONEY ORDER PAYABLE TO: AIR POLLUTION CONTROL DISTRICT, COUNTY OF LOS ANGELES.
 - C. EACH APPLICATION MUST BE FILLED OUT COMPLETELY AND FILED IN TRIPLICATE. ACCOMPANYING PLANS MUST BE IN TRIPLICATE.
 - D. EACH APPLICATION MUST BE SIGNED BY A RESPONSIBLE MEMBER OF THE ORGANIZATION THAT IS TO OPERATE THE EQUIPMENT.
- INCOMPLETE APPLICATIONS NOT ACCEPTABLE

1A. PERMIT TO BE ISSUED TO:

LOBBER INDUSTRIES OF CALIF.
INDUSTRIES DIVISION OF ORGANIZATION THAT IS TO RECEIVE PERMIT

1B.

ARNOLD LOBER

NAME (OR NAME) OF OWNER OR PRINCIPAL PARTNER OR BUSINESS AS (ADD) ABOVE ORGANIZATION

2A. MAILING ADDRESS:

17908 S. FIGUEROA GARDENA CALIF.

NUMBER STREET CITY OR COUNTY STATE ZIP CODE

2B.

40748

3A. EQUIPMENT LOCATION ADDRESS:

17908 S. FIGUEROA GARDENA 40748

NUMBER STREET CITY OR COUNTY STATE ZIP CODE

3B.

FIG. 2 PART 2-12

REPLACE IN PARENTHESES ABOVE

4. EQUIPMENT DESCRIPTION.

APPLICATION IS HEREBY MADE FOR AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:

ONE DRY CLEANING SYSTEM.

BONLER & WERNER INC. MASHINEN FABRIK AUGSBURG

MODEL S7100, SER. NO. 247106 WITH 4748 H.P. DRIVE MOTOR

5. IF THIS EQUIPMENT HAS A PREVIOUS OPERATING PERMIT, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL OWNER THAT OPERATED THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.

N/A

PREVIOUS PERMIT NUMBER

6. PERMIT APPLICATION REASON:

- 16 NEW CONSTRUCTION
- ALTEATION
- CHANGE OF LOCATION
- CHANGE OF OWNERSHIP

7. TYPE OF ORGANIZATION:

- 17 CORPORATION
- PARTNERSHIP
- INDIVIDUAL OWNER
- GOV'T. AGENCY

8. ESTIMATED COST OF EQUIPMENT OR ALTERATION:

AIR POLLUTION CONTROL EQUIPMENT BASIC EQUIPMENT

40,000

9. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, WHAT IS THE

ESTIMATED STARTING DATE

ESTIMATED COMPLETION DATE

10-15-1972

10. GENERAL NATURE OF BUSINESS:

TEXTILE PROCESSING (KNITTING DYING & FINISHING)

11. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:

Ambros Dragotjevic

12. OFFICIAL TITLE OF SIGNER:

PLANT MGR.

13. TYPE OR PRINTED NAME OF SIGNER:

AMBROS DRAGOTJEVIC

14. DATE:

10-18-1972

15. PHONE NUMBER:

321-8450

BY, LIST NO. 2-6

VST 7-14

ALPHA LIST: 71-74

TS NO.: 79-80

CLASS:

1H

III

3

ASSIGNMENT: 19-20

WORD UNITS: 21-24

APPLICATION NO.: 31-36

EQUIP. CAT. NO.: 38-45

TYPE: 46

VALIDATION 25-29 (111)

W09458 OCT 25 72 1 A 40.00

40.00 \$ # 1127

APPLICANT USE ONLY

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LOBBER INDUSTRIES OF CALIFORNIA						DATE OF INSPECTION 7/9/74
MAILING ADDRESS 17908 South Figueroa Avenue, Gardena, California 90248						PERMIT APPL. NO. A-73978
EQUIPMENT LOCATION (ADDRESS) BBBO						A.P.C. YORK NO. CN
REASON PERMIT IS REQUIRED:	NEW CONSTRUCTION (X)	CHANGE OF OWNERSHIP ()	CHANGE OF LESSEE ()	CHANGE OF LOCATION ()	EQUIPMENT ALTERATION ()	
DATE CONSTRUCTION AUTHORIZED:	BY	TIME OPENING INSPECTION:	FROM 9:30 A.M.	TO 10:10 A.M.		
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT: 2 hrs/day, 5 days/week						
WEIGHTS	VIBS	ESTIMATED COST:	BASIC EQUIPMENT: \$40,000	A.P.C. EQUIPMENT: 8		
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: Ambros Dragojevic, plant manager						
FLR DUST & FUME PROBLEMS ONLY:	PROCESS WEIGHT (S)	LBs. /HR.	ALLOWED LOSSES:	LBs. /HR.	ESTIMATED LOSSES:	LBs. /HR.
OFFICIAL EQUIPMENT DESCRIPTION, CALCULATION OF PROCESS WEIGHT(S), PROCESS DESCRIPTION AND FINDINGS:						

APPLICATION NO. A-73978:

SYNTHETIC SOLVENT DRY CLEANING UNIT, BOHLER & WEBER KG MASHINEN FABRIK AUGSBURG, MODEL SJ100, SERIAL NO. 248/7106.

BACKGROUND:

This application is required for equipment which is new construction.

The equipment was found to be located as shown on the drawing in this application.

DESCRIPTION OF THE PERMIT UNIT:

The dry-cleaning ^{UNIT} system is one permit unit since all of the equipment is interconnected by pipes or hoses for the flow of solvent.

OBSERVATIONS:

During the investigation, the following equipment was observed in actual operation: the complete dry-to-dry ^{UNIT} system.

No solvent odors were detected in the immediate vicinity of the dry-cleaning equipment. No odors were detected outside of the building housing the equipment. No visible emissions were observed from any of the equipment or the exhaust vents. Mr. Ambros Dragojevic stated that the equipment is operated an average of 2 hours per day, 5 days per week. Solvent make-up to the system averages 300 gallons per month. The average daily solvent loss to the atmosphere would, therefore, be 186.9 pounds.

RECOMMENDED DISPOSITION:	(X) APPROVE FOR PERMIT.	() APPROVE FOR PLANTY SUBJECT TO CONDITIONS LISTED BELOW.	() HOLD, SEE EXPLANATION BELOW.	() DENY PERMIT.
--------------------------	-------------------------	--	----------------------------------	------------------

REVIEWING ENGINEER:
 CONCUR WITH RECOMMENDATIONS
 DO NOT CONCUR WITH RECOMMENDATIONS
 SEE COMMENTS ON ATTACHED PAGE

SIGNATURE: *David E. Schuen*
 David, E. Schuen, A. P. Engineer
 PAGE 1 OF 2 PAGES
 16-50D106 NS-33-53

ENGINEERING DIVISION...FIELD REPORT

NAME OF APPLICANT LORBER INDUSTRIES OF CALIFORNIA	APPL. NO. A-73978	DATE OF INSPECTION 7/9/74
--	----------------------	------------------------------

CONCLUSIONS AND RECOMMENDATIONS:

The operation of this equipment is not expected to violate any of the Rules and Regulations. Specifically, no visible emissions to violate Rule 50, or particulate emissions to violate Rule 52 are expected to occur. The low intensity and volume of odors emitted are not expected to cause a public nuisance in violation of Rule 5i at this location. The solvent used is perchloroethylene which is specifically exempt in Rule 66,1,4. A permit to operate the dry cleaning equipment is recommended. There is no condition necessary on the permit.

Ln: 7/9/74

SIGNATURE *David E. Schwien*

David E. Schwien, A. P. Engineer

NOTICE TO APPLY FOR APCD PERMIT

FIRM NAME (DBA): LOEGER INDUSTRIES OF CALIFORNIA		PHONE NO.:
OWNERSHIP: MR. ARMAND LOEGER	INSTALLING OPERATOR:	
MAILING ADDRESS: 17908 S. FIGUEROA ST.	MAILING ZIP CODE: 90248	
EQUIPMENT ADDRESS: SAME		

YOU ARE HEREBY NOTIFIED THAT PURSUANT TO SECTION 28279 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA A MISDEMEANOR HAS BEEN COMMITTED THROUGH THE (BUILDING, ERECTING) ALTERATION, REPLACING, USING, OR OPERATION OF SAFETY DRY WASHING SYSTEM BOILER & WHEEL & G MA-MACHINE FRANCE AGASSING, MODEL STUDY, SER. NO. 345/7106 WITH 47.48 H.P. DRIVE MOTOR

WITHOUT AN AIR POLLUTION CONTROL DISTRICT PERMIT SO TO DO, IF AN APPLICATION FOR THE ABOVE EQUIPMENT HAS NOT BEEN ACCEPTED BY THE AIR POLLUTION CONTROL DISTRICT WITHIN 14 CALENDAR DAYS OF THE DATE OF SERVICE OF THIS NOTICE, A MISDEMEANOR COMPLAINT MAY BE FILED IN A MUNICIPAL COURT IN THE COUNTY OF LOS ANGELES.

SERVED TO: Mr. Armand Loeger 17908 S. FIGUEROA ST. LOS ANGELES, CALIF. 90248 **HALPH E. GEORGE**
DIRECTOR OF ENFORCEMENT

SERVED BY: DAVID SCHMIDT DATE SERVED: 10/16/72

THE FOLLOWING FORMS ARE LEFT HEREWITH.

APPLICATION FORMS 400A PERMIT INFORMATION, 400B PERMIT INSTRUCTIONS, 400C 400D

REASON PERMIT REQUIRED:	<input checked="" type="checkbox"/> NO PRIOR PERMIT <input type="checkbox"/> ALTERATION <input type="checkbox"/> OWNER CHANGE <input type="checkbox"/> ENGINEER CHANGE	APCD FILE NO.:
NAME OF PRIOR PERMITTEE:	<u>D.N.A.</u>	PERMIT NO.:

SECTION 1. COMPLETE THIS SECTION EACH TIME A NOTICE IS SERVED. DATE OF INSPECTION: 10-16-72

ESTIMATED % COMPLETE: <u>100%</u>	HAS EQUIPMENT IN OPERATION: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	APCD FILE NO.:
COMPLETION DATE: <u>8/72</u>	EQUIP. IS: <input checked="" type="checkbox"/> BASIC <input type="checkbox"/> CONTINUA	PERMIT NO.:

IF FOR CONTROL EQUIP. PERMIT STATUS OF BASIC: D.N.A.

IF ALTERATION, BRIEFLY DESCRIBE CHANGE: D.N.A.

PROCESS DESCRIPTION & FINDINGS (NUISANCE EVALUATION, POSSIBLE EMISSIONS, ODORS, ETC.)

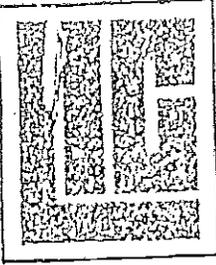
THIS COMPANY, FORMERLY SOLT KNITTING MILLS, IS SETTING UP A NEW PLANT CONSISTED OF 32 KNITTING MACHINES, A FABRIC DYER, A DRYCLEANING UNIT, AND TWO LARGE 250 HP STEAM BOILERS. AT THIS TIME THE PLANT IS IN ABOUT 30% OPERATION. YET TO BE COMPLETED: LARGE KNITTING BOILER ROOM - NORTH 1/2 OF PLANT, 1ST BOILER, AFTERMACHINE, 2ND BOILER. UNIT IN QUESTION USES PERCHLOROETHYLENE - NO ODORS OF "PEC" NOTICED AROUND UNIT WHILE IN OPERATION. PLANT SHOULD BE IN FULL OPERATION IN 1 TO 2 MONTHS.

EQUIPMENT MAY VIOLATE SECTION 24243	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	RECOMMEND FOR PERMIT	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> OTHER
ENGINEERING FINAL ACCOMPLISHED:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	<u>ENGE DEPT.</u>	

SECTION 2. TO BE COMPLETED ONLY IF ENGINEERING FINAL ACCOMPLISHED. IN ADDITION, COMPLETE APPROPRIATE SECTION A, B OR C ON REVERSE. USE SEPARATE FORM FOR EACH FINAL.

WIND: N E S W WEATHER: CLEAR OVERCAST RAIN OTHER, EXPLAIN:

10814224



LORBER INDUSTRIES CALIFORNIA INC.

January 30, 1987

Customer Service Section
South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

RE: Expiration of Permit #P57686

A 43978

Dear Sir,

Please be advised that we no longer have a dry cleaning machine or perchlorethylene on our premises, and do not wish to renew the applicable permit.

Thank you for your assistance.

Sincerely,

Robert R. Dalziel
Controller

RRD:jp

LORPRINT / LORBER INDUSTRIES INTERNATIONAL

EXECUTIVE OFFICES: 17008 SOUTH FIGUEROA STREET, GARDENA, CALIFORNIA 90248 / (213) 321-8450 / TWX 9103466300 / FAX (213) 538-1288

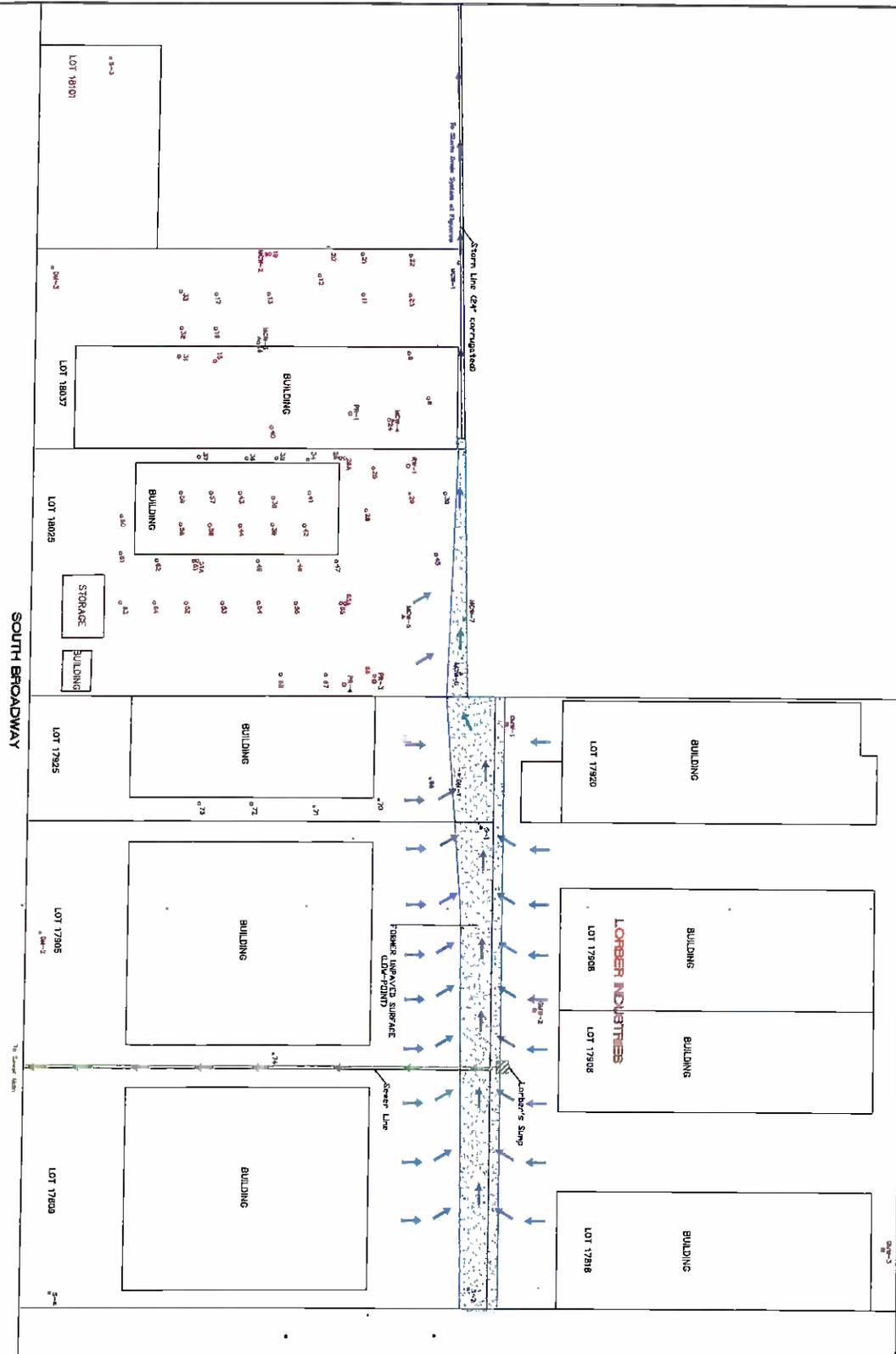
ATTACHMENT

5

SOUTH FIGUEROA



SOUTH BROADWAY



General Notes

- ◊ - Groundwater Well Location
- ◊ - Former Unpaved/Use Surface
- Surface Drainage Flow Direction
- Sewer Flow Direction

Project Details

Name
John Broadway Property

Address
18037 South Broadway
Carlsbad, CA

Number
8157

Figure Details

Figure #
Figure 1

Figure Title
SITE PLAN

Revise Date
July 2015

Scale
1" = 100'

Company Information

Address
520 West 1st Street
Luskin, CA 92780

Telephone
(714) 730-5997

Fax
(714) 730-6478

ATTACHMENT

6

MSDS

Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



Mallinckrodt
CHEMICALS



24 Hour Emergency Telephone 908-950-2151
CHEMTREC 1-800-424-9300

National Response in Canada
CANUTEC: 619-896-6556

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-562-2537) for assistance.

ACETONE

MSDS Number: A0446 --- Effective Date: 04/10/01

1. Product Identification

Synonyms: Dimethylketone; 2-propanone; dimethylketal

CAS No.: 67-64-1

Molecular Weight: 58.08

Chemical Formula: (CH₃)₂CO

Product Codes:

J.T. Baker: 5356, 5580, 5805, 9001, 9002, 9003, 9004, 9005, 9006, 9007, 9008, 9009, 9010, 9015, 9036, 9125, 9254, 9271, A134, V655

Mallinckrodt: 0018, 2432, 2435, 2437, 2438, 2440, 2443, 2445, 2850, H451, H580, H981

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Acetone	67-64-1	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES

MATERIAL SAFETY DATA SHEET

THIS MSDS COMPLIES WITH OSHAS HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) AND OSHA Form 174

IDENTITY AND MANUFACTURER'S INFORMATION

NFPA Rating: Health-2; Flammability-1; Reactivity-1; Special-0
 Supplier's Name: Metro-Chem Ind., Inc.
 Supplier's Address: P.O. Box 626, Gardena, CA 90248
 Date Prepared: 01/11/01 Prepared By: JT
 Information Calls: (800) 289-3660

HMSIS Rating: Health-2; Flammability-1; Reactivity-1; Personal Protection-0
 DOT Hazard Classification: NON HAZARDOUS
 Identity (trade name as used on label): **Maximum Strength Bio-Sol**
 MSDS NUMBER: EXP07148A Revision: -

EMERGENCY RESPONSE NUMBER: (800) 255-3924 NOTICE: JUDGMENT BASED ON INDIRECT TEST DATA

SECTION 1 MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS-CHEMICAL NAMES AND COMMON NAMES	CAS #	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	Carcinogen Ref. Source**
Isopropanol	67-63-0	N/E	400	400	N/E
2-Butoxyethanol	111-76-2	N/E	25	25	N/E
Potassium Hydroxide	6834-92-0	N/E	N/E	N/E	N/E
Non-ionic Surfactant	2.0				

SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: > 212 F
 Vapor Pressure: N/E Max.
 Vapor Density: > 1.00
 Solubility in Water: Complete
 Appearance and Odor: CLEAR YELLOW LIQUID WITH A MILD BUTYL ODOR

Specific Gravity: 1.065
 pH of Product: 7.0
 Evaporation Rate: < 1.00
 Water Reactive: N/E

SECTION 3 FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY as per USA FLAME PROJECTION TEST: NON FLAMMABLE

Auto Ignition Temperature: N/E

Flammability Limits in Air by % in Volume: N/E

Flash Point and method used (non-aerosols): N/E

EXTINGUISHER MEDIA: Foam, dry chemical, carbon dioxide, water.

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: TOXIC FUMES MAY BE EMITTED IF MATERIAL IS EXPOSED TO EXTREME TEMPERATURES.

SECTION 4 REACTIVITY HAZARD DATA

STABILITY (X) STABLE () UNSTABLE HAZARDOUS POLYMERIZATION () WILL (X) WILL NOT OCCUR

Incompatibility (Mat. to avoid): VERY STRONG OXIDIZING AGENTS

Conditions to Avoid: KEEP AWAY FROM HEAT OR OPEN FLAME.

Hazardous Decomposition Products: Smoke, Carbon Monoxide, Carbon Dioxide and other Toxic Fumes.

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: (X) INHALATION (X) INGESTION (X) SKIN ABSORPTION (X) EYE () NOT HAZARDOUS

ACUTE EFFECTS: None Known.

Inhalation: Prolonged exposure to vapors may cause signs & symptoms of Central Nervous System Depression such as Headache, Dizziness, Weakness and Loss of Coordination. Vapor/Mist may result in irritation, Headache, Nausea, Vomiting and Diarrhea.

CHRONIC EFFECTS: None Known.

Medical Conditions Generally Aggravated by Exposure: None Known.

EMERGENCY FIRST AID PROCEDURES

Eye Contact: Remove contact lenses immediately. Flush eyes with plenty of water for at least 15 minutes. Get immediately medical attention.

Skin Contact: Wash skin with plenty of water. Remove contaminated clothing and wash before reuse. Get medical attention if needed.

Inhalation: Remove to Fresh Air. Give Oxygen or CPR. Get immediately medical attention.

Ingestion: Do not give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. Get immediately medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Steps to be taken in Case Material is Released or Spilled:

Small Spills: Mop up.

Large Spills: Dike area and absorb into neutral material or pump up.

Disposal: As allowed by Federal State and Local requirements. Many jurisdictions allow small amounts into the sanitary sewer.

Handling and Storage: Store in a cool, dry, well ventilated area. Keep container tightly closed when not in use.

Other Precautions: Keep out of reach of children. For industrial and institutional use only.

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken if Material is Spilled or Released: KEEP UNNECESSARY PEOPLE AWAY. SPILLS ARE SLIPPERY. DIKE & CONTAIN WITH INERT ABSORBENT MATERIAL. COLLECT FOR DISPOSAL.

Waste Disposal Methods: CONSULT LOCAL AUTHORITY FOR ALTERNATE METHODS, OBSERVE ALL LOCAL, STATE & FEDERAL REGULATIONS.

Precautions To Be Taken In Handling & Storage: STORE IN A COOL WELL VENTILATED AREA AWAY FROM SPARK, HEAT AND OPEN FLAME.

Other Precautions &/or Special Hazards: KEEP OUT OF REACH OF CHILDREN.

We believe the statements, technical information and recommendation contained herein are reliable, but they are given without warranty or guarantee of any kind.

* Chemical Listed as Carcinogen or Potential Carcinogen. (a) NTP (b) IARC Monograph (c) OSHA (d) Not Listed (e) Animal Data Only



MATERIAL SAFETY DATA SHEET

Date-Issued: 07/05/2000
 MSDS Ref. No: 10024
 Date-Revised: 01/16/2001
 Revision No: New MSDS

Lacquer Thinner

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lacquer Thinner
 PRODUCT DESCRIPTION: Lacquer Thinner
 PRODUCT CODE: 24
 PRODUCT FORMULATION NAME: Lacquer Thinner
 CHEMICAL FAMILY: Organic Solvent
 GENERIC NAME: Lacquer Thinner

MANUFACTURER

Auto Wax Company, Inc.
 Auto Magic®
 1275 Round Table Drive
 Dallas, TX 75247
 Product Stewardship: 1-214-631-4000
 Transportation: 1-800-826-0828
 Auto Wax Company, Inc.
 Auto Magic®

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (U.S.): (800) 424-9300
 CANUTEC: (613) 996-6666
 Emergency Phone: 1-800-826-0828

COMMENTS: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR 1910.1200

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS#	EINECS#
Toluene	50 - 70	108 -88-3	
Methyl ethyl ketone	15 - 25	78 -93-3	
Methyl isobutyl ketone	15 - 25	108 -10-1	

COMMENTS: Product composition ranges shown are typical values for health, safety and environmental use and are not intended as specification.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Flammable liquid and vapor. CAUTION! May cause eye irritation.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: May cause slight irritation.

INGESTION: Harmful if swallowed

INHALATION: Repeated or prolonged inhalation may cause toxic effects.

ACUTE TOXICITY: overexposure to vapors may cause headaches, dizziness, confusion and nausea.

MEDICAL CONDITIONS AGGRAVATED: dermatitis may be aggravated by excessive exposure to skin.

ROUTES OF ENTRY: include skin contact, skin absorption, eye contact, inhalation and ingestion

TARGET ORGAN STATEMENT: not available

CANCER STATEMENT: not available

HEALTH HAZARDS: Moderately irritating to the eyes

PHYSICAL HAZARDS: Flammable liquid.

4. FIRST AID MEASURES

EYES: Flush eye with water for 15 minutes. Seek medical attention if irritation persists.



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300 or 202-483-7616

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: TOLUENE
This MSDS is valid for all grades and catalog numbers

General Information

Company's Name: PHARMCO PRODUCTS, INC.	Date MSDS Revised: Nishant-1/21/02
Company's Street: 58 VALE RD.	Safety Data Review Date: 8/23/99
Company's City: BROOKFIELD	Preparer's Company: PHARMCO PRODUCTS, INC.
Company's State: CT	Preparer's St Or P. O. Box: 58 VALE RD.
Company's Zip Code: 06804	Preparer's City: BROOKFIELD
Company's Emerg Ph #: (203) 740-3471	Preparer's State: CT
Company's Info Ph #: (203) 740-3471	Preparer's Zip Code: 06804

Ingredients/Identity Information

Proprietary: NO	NIOSH (RTECS) Number: XS5250000
Ingredient: TOLUENE (SARA III)	CAS Number: 108-88-3
Ingredient Sequence Number: 01	OSHA PEL: 200 PPM/150 STEL
Percent: >60	ACGIH TLV: 50 PPM; 9293

Physical/Chemical Characteristics

Appearance And Odor: COLORLESS, BENZENELIKE ODOR	Specific Gravity: 0.871
Boiling Point: 232F	Evaporation Rate And Ref: 4.5, ETHER
Vapor Pressure (MM Hg/70 F): 38	Solubility In Water: NEGLIGIBLE
Vapor Density (Air=1): 4.5	Percent Volatiles By Volume: 100

Fire and Explosion Hazard Data

Flash Point: 40F TCC.
Lower Explosive Limit: 1.2
Upper Explosive Limit: 7.0
Extinguishing Media: DRY CHEMICAL, REGULAR FOAM, WATER FOG, CARBON DIOXIDE
Special Fire Fighting Proc: SELF-CONTAINED BREATHING APPARATUS WITH FULL

M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : INTRAWET 8377 NEW
 IDENTIFICATION NUMBER: C00773L100
 PRODUCT USE/CLASS : Dyeing auxiliary

DATE PRINTED: 09/06/96

SUPPLIER:
 CROMPTON & KNOWLES COLORS INC.
 P.O. BOX 341

MANUFACTURER:
 CROMPTON & KNOWLES COLORS INC.
 READING, PA 19603

24 HR. EMERGENCY TELEPHONE:

CHEMTREC 1-800-424-9300

PREPARER: Health & Safety Dept, PHONE: 610-582-8765, PREPARE DATE: 06/30/94

SECTION 2 - COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % EQUAL TO
01	Isopropyl alcohol	67-63-0	7.1 %
02	Dyeing auxiliary	Proprietary	93 %

ITEM	EXPOSURE LIMITS						SKIN
	TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	COMPANY TLV-TWA		
01	400 ppm	500 ppm	400 ppm	N.E.	N.E.	NO	
02	N.E.	N.E.	N.E.	N.E.	N.E.	NO	

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Caution: Combustible liquid. Keep away from heat, sparks, and flame. May cause eye, skin, and respiratory irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: May be irritating to the eyes.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May be irritating to the skin.

EFFECTS OF OVEREXPOSURE - INHALATION: May be irritating to the respiratory tract.

EFFECTS OF OVEREXPOSURE - INGESTION: Not known.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Not known.

(Continued on Page 2)