Cleanup and Abatement Order R4-2009-018

Although the exact cause and dates of the release is unknown, evidence, as summarized in the subsequent sections, shows that the release of wastes occurred prior to 1998. The types and levels of waste constituents found in the soil, soil gas, and groundwater at the Site can be attributed to unauthorized waste releases from the former Clopay facility during operations conducted by Masco, Clopay, and/or Lightron. Lightron, Clopay, and Griffon have done business as operators at the Site and have knowledge of the activity causing the discharge of wastes. Therefore Lightron, Clopay, and/or Griffon meet the criteria and should be named in the cleanup and abatement order as a responsible party.

3. EVIDENCE, STATUS, AND IMPACT OF WASTE DISCHARGES.

VOCs have been detected in the subsurface soil, soil gas, and groundwater underlying the former Clopay site and its abutting properties including the ERC site, easement of railroad tracks and drainage channel, and American Racing Equipment. The most frequently-occurring VOCs detected include PCE, trichloroethene TCE, and 1,1-DCE.

Basis for Finding No. 3

- Dames & Moore, Report Soil and Groundwater Investigation for Clopay Corporation, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California, April 11, 1995.
- Dames & Moore, Environmental Assessment Report, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California, July 22, 1997.
- TRAK Environmental Group, Report of Groundwater Monitoring Well Installation and Forth Quarter Status Report. Former Clopay Site, 2930 East Maria Street, Rancho Dominguez, California, February 17, 2006.
- Block Environmental, Report of Additional Subsurface Investigation Activities, ERC Company, 2970 Maria Street, Rancho Dominguez, California, February 21, 2006.
- Environmental Audit, Inc., Site Assessment Report, American Racing Equipment, 19200 South Reyes Avenue, Rancho Dominguez, California, May 15, 2007.
- TRAK Environmental Group, Third Quarter Status Report. Former Clopay Site, 2930 East Maria Street, Rancho Dominguez, California, October 31, 2007.
- Block Environmental, Forth Quarter 2007 Groundwater Monitoring and Sampling Report, ERC Company, 2970 Maria Street, Rancho Dominguez, California, January 24, 2008.
- Environmental Audit, Inc., Groundwater Monitoring Report Forth Quarter 2007 and Report on Installation of Groundwater Well MW-106, American Racing Equipment, 19200 South Reyes Avenue, Rancho Dominguez, California, January 31, 2008.
- Water Quality Control Plan for the Los Angeles Basin (Basin Plan, 1995)

3.1 Subsurface Investigations and Remediation at Clopay (Griffon) Site

Cleanup and Abatement Order R4-2009-018

Subsurface Investigation

From April 1992 to May 1997, Dames & Moore, on behalf of Clopay, conducted several phased subsurface soil and groundwater investigations at the Property. Their findings are as follows:

- Two areas of concern, referred as Area 1 and Area 2, are identified as impacted areas by VOCs in soil, soil gas, and groundwater. Area 1 is an isolated area of concern with VOCs in both soil and groundwater located in the southern portion of the Property. Area 2 is located in the southeastern portion of the Property, centered at former waste storage and disposal area (also referred as the drum storage pad) (see Figure 2).
- In Area 1, the principal contaminant detected in soil was PCE. Low to trace concentrations of TCE, methylene chloride, toluene, and 1,1,1-TCA were also detected. PCE in soil ranged from 30 to 1,840 micrograms per kilogram (μ g/kg, also referred as parts per billion by weight or ppb). In addition, total recoverable petroleum hydrocarbons (TRPH) was detected in shallow soil at a concentration up to 22,000 milligrams per kilogram (mg/kg), or 22,000,000 ppb by weight. Dissolved PCE level in the underlying groundwater (monitoring wells MW-2 and MW-11) has been steadily below or near the non-detected (ND) levels in the recent monitoring events including March 2007.
- In Area 2, PCE was the principal detected contaminant, as in Area 1. The highest levels of contaminants were found directly beneath the drum storage pad (Boring B-5 and B-18) located at the southeast corner of the Property (see Figure 2). The highest PCE concentrations in soil at B-5 were detected at 2,800,000 ppb at 1 foot below ground surface (bgs), 11,000 ppb at 20 feet bgs, and 1,300 ppb at 30 bgs. PCE concentration in soil at B-18 was 54,158 ppb at 2.0 feet bgs.
- Although PCE was the major contaminant detected in Area 2, other contaminants of concern were also detected at various points, including but not limited to 1,1-DCA, (233 ppb at 25-ft bgs, B-20), 1,1-DCE, (750 ppb at 30-ft bgs, B-18), methylene chloride (122 ppb at 20-ft bgs, B-21), 1,1,2,2,-PCE (1,800 ppb at 5-ft bgs, B-6), toluene (39,000 ppb at 1-ft bgs, B-5), ethylbenzene 13,000 ppb, B-5), xylenes (54,000 ppb, B-5), 1,1,1-TCA (140,000 ppb at 1-ft bgs, B-5), 1,1,2-TCA (137 ppb at 10-ft bgs, B-25), and TCE (4,400 ppb at 1-ft bgs, B-5). In addition to VOCs, 8,700,000 ppb of heavy oil and 450,000 ppb of Stoddard solvent were also detected at 1-foot bgs at B-5.
- Generally, the highest contaminant levels were detected near ground surface and the lowest contaminant levels were detected near the groundwater table at the time of the Dames & Moore's investigation in 1990's. Contaminant concentrations generally decrease with distance from the former drum storage pad.
- Three onsite monitoring wells, MW-1, MW-2, and MW-3, were installed during December 1994 investigation. Groundwater sampling data from the three wells indicated that only MW-3 near the former drum storage pad contained VOCs, with PCE

Cleanup and Abatement Order R4-2009-018

concentration of 35 ppb and TCE of 2.5 ppb at that time, much lower compared to the recent PCE concentrations of 11,500 ppb and TCE of 321 ppb at as of December 15, 2008 (TRAK, January 15, 2008).

- An offsite groundwater monitoring well MW-4 was installed in May 1997 on the Flood Control Easement approximately 50 feet south of the former drum storage pad. PCE, TCE, and 1,1-DCE were detected at 10,000 ppb, 340 ppb, and 1,900 ppb, respectively.
- Fifty-nine soil vapor probes were installed on the Clopay site and along the rail spur and flood control channel access road near the former drum storage pad during the 1992 and 1994 investigations. Analytical results of the soil vapor samples indicated that PCE was the major compound detected. These test results demonstrated that the highest VOC concentrations are located south and southwest of the former drum storage pad (Figure 3).

Since 1997, PHR Environmental Consultants, Inc. and its successor Trak Environmental have conducted additional onsite and offsite subsurface investigations and groundwater monitoring. The findings are summarized below:

- Six groundwater monitoring wells, namely MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11, were installed onsite and offsite during October and December 2005.
- At MW-6, a well on the railroad spur approximately 60 feet southeast of the former drum storage pad, 2,700 µg/kg and 1,340 µg/kg of PCE were detected at 25 feet bgs and 40 feet bgs, two clayey layers, respectively.
- At MW-7, a well across the flood control channel south of the former drum storage pad, elevated PCE levels up to 7,670 μ g/kg in soil was detected at 40 feet bgs, a clayey layer. Groundwater was reported at 38.6 to 38.8 feet bgs in 2005.
- The Deceember 2008 groundwater sampling results indicate that PCE concentrations are 11,500 ppb in MW-3, an onsite monitoring well, and 7,920 ppb in MW-6 and 11,600 ppb in MW-7, two offsite monitoring wells south of the former drum storage pad (Figure 4).

Remediation at Clopay (Griffon) Site

Griffon conducted limited remediation work at the Site:

AREA 1 - In August 1998, the top 3-foot of VOCs-impacted soil in Area 1 was excavated. The VOCs-impacted soils between 3-foot below ground surface (bgs) and 20 feet bgs were removed in April and May 2006. Additional soil sampling is required to verify the soil conditions between 20 feet bgs and groundwater table.

AREA 2 – Griffon/Clopay peformed soil and groundwater remediation at Area 2 of the former Clopay facility from August 1998 to October 2000. During this active remediation

Cleanup and Abatement Order R4-2009-018

period, VOCs in soil and groundwater were being effectively removed using a soil vapor extraction (SVE) and air sparging (AS) system. The soil and groundwater cleanup was stalled from October 2000 to Septmber 2008 due to an access agreement dispute with Air Cargo. Soil confirmation sampling was performed and the results were submitted to Regional Board in February 2001. The soil confirmation sampling results showed that the impact in soil was still at levels threatening human health and groundwater quality. For example, PCE was detected at 6,400 micrograms per kilogram mg/kg at 25 feet bgs. The VOCs-impact in groundwater was also not effectively abated. Dissolved phase VOCs in groundwater in Area 2 are still significantly higher than the cleanup goals, maximum contaminant levels (MCLs), as indicated by the aforementioned December 2008 sampling results. Griffon has resumed the onsite soil and groundwater remediation using SVE/AS system since October 2008.

3.2 Subsurface Investigations at ERC Site

Block Environmental, on behalf of ERC, has conducted phased environmental investigations at the ERC site since 2001. VOCs have been mainly detected in soils and groundwater on the southwest portion of the ERC property near Area 2 of the Clopay site (Figure 5). The findings from the aforementioned investigations indicate the following:

- VOCs have been detected in soils and groundwater on the southwest portion of the ERC property. PCE was the predominant compound along with others VOCs that appear to be the degraded daughter compounds of PCE.
- Among eight onsite monitoring wells, elevated dissolved-phase PCE concentrations were detected in monitoring wells GMW-1, GMW-2, GMW-3, GMW7 and GMW8 located in the southwest corner of the ERC property (see Figure 5).
- PCE was detected in all of the soil samples collected from borings GMW-1, GMW-2 and GMW-3 from 5 ft bgs through 60 ft bgs in concentrations ranging from 5.4 ppb to 6,000 ppb.
- The concentrations of VOCs in both soil and groundwater are the highest at the southwest corner of the ERC property and show a general decrease trend as the distance increases from the corner.
- No records indicate potential link between the onsite activities to the detection of the subsurface VOCs impact (mainly PCE).
- ERC has characterized on site VOCs impact in both vadose zone soil and shallow groundwater aquifer on the ERC property.

Cleanup and Abatement Order R4-2009-018

3.3 Subsurface Investigation at American Racing Site

American Racing Equipment (ARE) has been conducting subsurface investigation and cleanup at the ARE site since July 2006. Results from completed soil gas survey, soil boring and groundwater well installation are summarized as below:

- The December 18, 2006 Soil Gas Survey Report prepared by Environmental Audit, Inc. indicates that elevated PCE levels in soil vapor are only present at sampling locations near the groundwater well MW-7, showing elevated PCE concentration of 34,600 ppb as of December 20, 2005; MW-7 was installed on ARE facility by Clopay as part of their off-site delineation efforts across the flood control channel.
- Followed the soil gas survey, ARE conducted a soil and groundwater investigation in March, August, and December 2007. During this field investigations, three onsite soil borings, SB-1, SB-2, and SB-3, were advanced and six onsite groundwater monitoring wells, MW-101 trough MW-106 were installed (Figure 6). The findings of the subsurface investigation indicate that primarily PCE, and seemingly its daughter compounds TCE, 1,1-DCE, and cis-1,2-DCE are present in soil and groundwater predominantly at sampling locations between the Foundry and the Flood Control Channel. PCE was the only VOCs detected in the unsaturated soil.
- The soil gas, soil and groundwater investigation completed to date at the ARE site has not revealed significant VOCs sources in the vadose zone soil (unsaturated soil).

3.4 Subsurface Investigation at ZZYZX Site

A subsurface investigation has been recently conducted on a property, currently occupied by ZZYZX, Inc., located at 19070 South Reyes Avenue, Rancho Dominguez. The property is abutting the ARE property to the south. Based on the results of this investigation (Fero Environmental Engineering, Inc., May 2009), VOCs have been detected in both soil and groundwater beneath a former onsite clarifier, including 1,1-DCA,1,1-DCE,1,2-DCE,1,2-DCE,TCE, and vinyl chloride. The preliminary investigation results suggest that the subsurface VOC impact is not related to the release from the former Clopay Site. Therefore, Staff recommend the investigation on the ZZYZX's property be continued separately from the investigations and cleanup requirements covered by this proposed CAO until revision deemed necessary otherwise warranted by further evidence.

3.5 Summary of Findings from Subsurface Investigations

Regional Board staff have reviewed and evaluated technical reports and records pertaining to the release, detection, and distribution of contaminants on the former Clopay site and its vicinities. The findings are as follows:

Cleanup and Abatement Order R4-2009-018

- Dischargers have stored, used, and/or released VOCs, including PCE, on the former Clopay site. Elevated levels of PCE among other VOCs and petroleum hydrocarbons have been detected in both soils and groundwater beneath the former Clopay site, especially at the former hazardous waste disposal area (Area 2) abutting the ERC property and the rail road spur.
- ERC's investigations have revealed that VOCs, mainly PCE, are present at its southwest portion of the property abutting the former Clopay hazardous waste disposal area (Area 2). However, no known records indicate that PCE has been stored, used, or released on the ERC facility.
- Investigations conducted by both Clopay and American Racing Equipment have revealed that VOCs are present in soil vapor, soils, and groundwater on the ARE facility. The detected VOCs, predominantly PCE, are located in the area near the flood control channel off the Area 2. The site assessment results completed so far have not revealed significant VOCs sources on the American Racing Equipment site.
- The compositions of the VOCs detected beneath the former Clopay site, ERC site, rail road spur and flood control channel, and American Racing Equipment site are similar, with PCE being the dominant compound, along with its daughter compounds TCE, DCE, DCA, etc.
- The investigations also found that TCE, PCE and their associated chemical breakdown products, *cis*-1,2-DCE), *trans*-1,2- DCE, are present in the ground water at the Site and its vicinities in concentrations in excess of applicable *Water Quality Control Plan for the Los Angeles Basin* (Basin Plan) water quality objectives.
- 4. BASIN PLAN VIOLATIONS: The Regional Board adopted an amended Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) on June 13, 1994. The Basin Plan designates beneficial uses and establishes water quality objectives for inland surface waters, groundwaters, coastal waters and wetlands. The discharge of chlorinated solvent waste constituents and petroleum wastes from the former Clopay Site has exceeded the water quality objectives for the beneficial use of groundwaters as Specified in Table 3-7 (page 3-10) of the Basin Plan, therefore, is a violation of water quality objectives for ground waters of the Basin Plan (page 3-18).

Basis for Finding No. 4

- Basin Plan adopted in 1994 pursuant to California Water Code (Water Code) section 13240 and the federal Clean Water Act (CWA) section 303(c).
- See also Basis for Finding No.1.
- 5. SITE INVESTIGATION. The Dischargers have not completed site investigations needed to delineate the vertical and horizontal extent of waste impact in soil and ground water. The Dischargers must establish the vertical and horizontal extent of chlorinated hydrocarbon waste (PCE, TCE & their degradation products) and any other waste constituents with

Cleanup and Abatement Order R4-2009-018

sufficient detail to identify affected or threatened waters of the state and provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Board to be necessary.

Basis for Finding No. 5

State Water Resources Control-Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*¹⁰ provides in Section II.A.1., that the Regional Board shall require the Discharger(s) to determine the nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions. Installation of ground water monitoring wells typically occur as an iterative process until ground water monitoring data indicates that waste constituent concentrations are at or near background concentrations or not detectable in groundwater. Completion of this iterative process results in an adequate delineation of the plume in the horizontal direction.

The chlorinated solvent plume at the Site, especially vertically, is not adequately defined. Offsite impact of PCE and other VOCs needs to be further delineated.

Vertical delineation of the plume at the Site is also incomplete.

5. CLEANUP AND ABATEMENT ACTIONS. Griffon conducted limited onsite remedial activities at the Site on Area 1 and Area 2. During the two excavation actions conducted in August 1998 and May 2006, Griffon removed contaminated soils from the top 20 feet. However, the soil conditions between 20 feet bgs and the groundwater remain unknown. Based on confirmation sampling results, the soil and groundwater remediation using a SVE/AS system at Area 2 from August 1998 to October 2000, although effective, did not continue to reach cleanup goals for the protection of water quality and human health. The resumed subsurface remediation at Area 2 since October 2008 needs to be expanded to address offsite soil, soil gas, and groundwater VOC impact that migrated from Area 2...

Basis for Finding No. 6

- Dames & Moore, Remedial Action Plan, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California, December 11, 1997.
- Dames & Moore, Remedial Action Plan Addendum Groundwater Contamination, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California, April 10, 1998.
- TRAK Environmental Group, Report of Soil Corrective Action, Area 1 of Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California, June 1, 2006.
- TRAK Environmental Group, Limited Subsurface Investigation, Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California, September 18, 2006.

¹⁰ SWRCB Resolution No. 92-49 is a state policy that establishes policies and procedures for investigation and cleanup and abatement of discharges under CWC Section 13304. The Resolution includes procedures to investigate the nature and horizontal and vertical extent of a discharge and procedures to determine appropriate cleanup and abatement measures.

Cleanup and Abatement Order R4-2009-018

- TRAK Environmental Group, Fourth Quarter 2008 Combined Status Report, Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California, January 15, 2009
- TRAK Environmental Group, Third Quarter 2008 Combined Status Report, Former Clopay Site, 2930 Maria Street, and ERC Company Site, 2970 East Maria Street, Rancho Dominguez, California, October 3, 2008
- Interim Site Assessment & Cleanup Guidbook, California Regional Water Quality Control Board, Los Angeles and Ventura Counties, Region 4, May 1996.
- See also Basis for Finding No.3.
- 7. LEGAL AND REGULATORY AUTHORITY. This Order is based on (1) Section 13304 and Chapter 5, Enforcement and Implementation commencing with Section 13300 of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000); (2) applicable state and federal regulations; (3) applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the Water Quality Control Plan for the Los Angeles Region adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies, including State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies

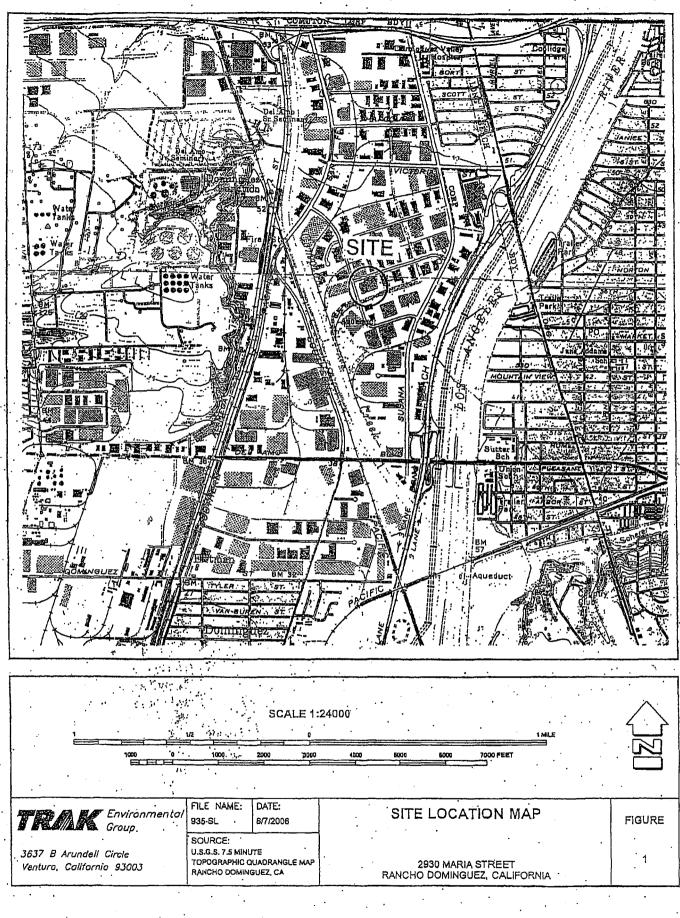
Basis for Finding No. 7

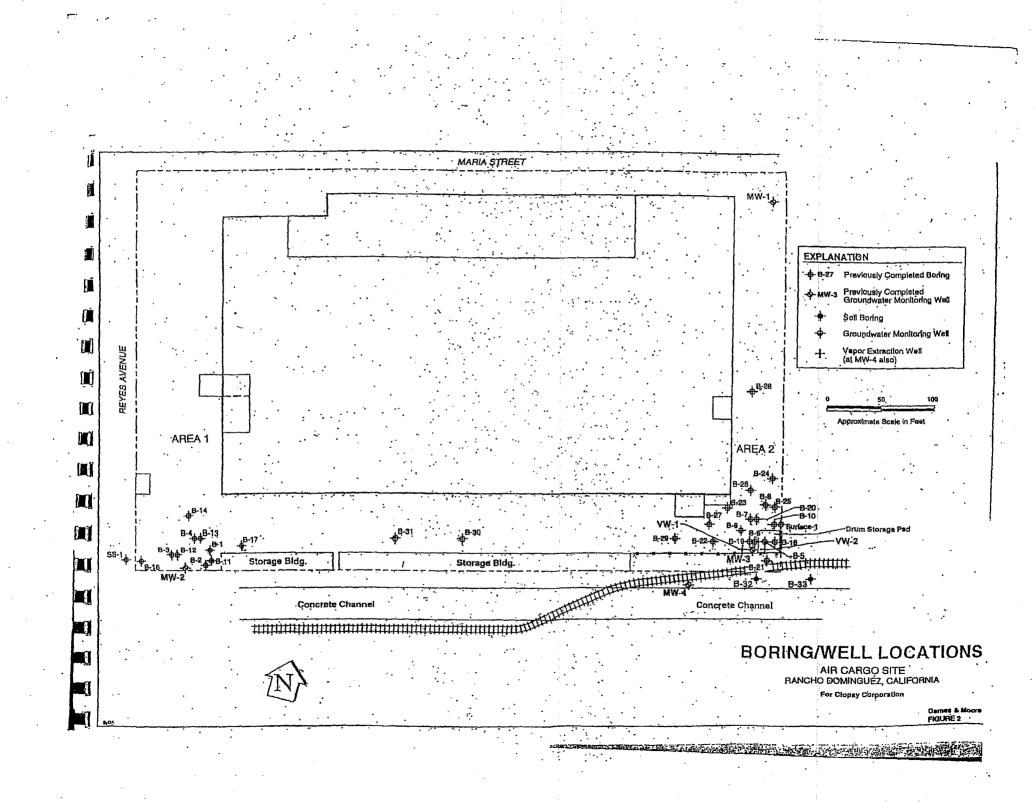
- California Water Code, Porter-Cologne Water Quality Control Act, with additions and amendments effective January 1, 2009.
- Water Quality Control Board for the Los Angeles Region (Adopted June 13, 1994), as amended.
- State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California.
- State Water Resources Control Board Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304)
- 8. Finding No. 8: CEQA EXEMPTION: "This enforcement action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, Title 14 of the California Code of Regulations."

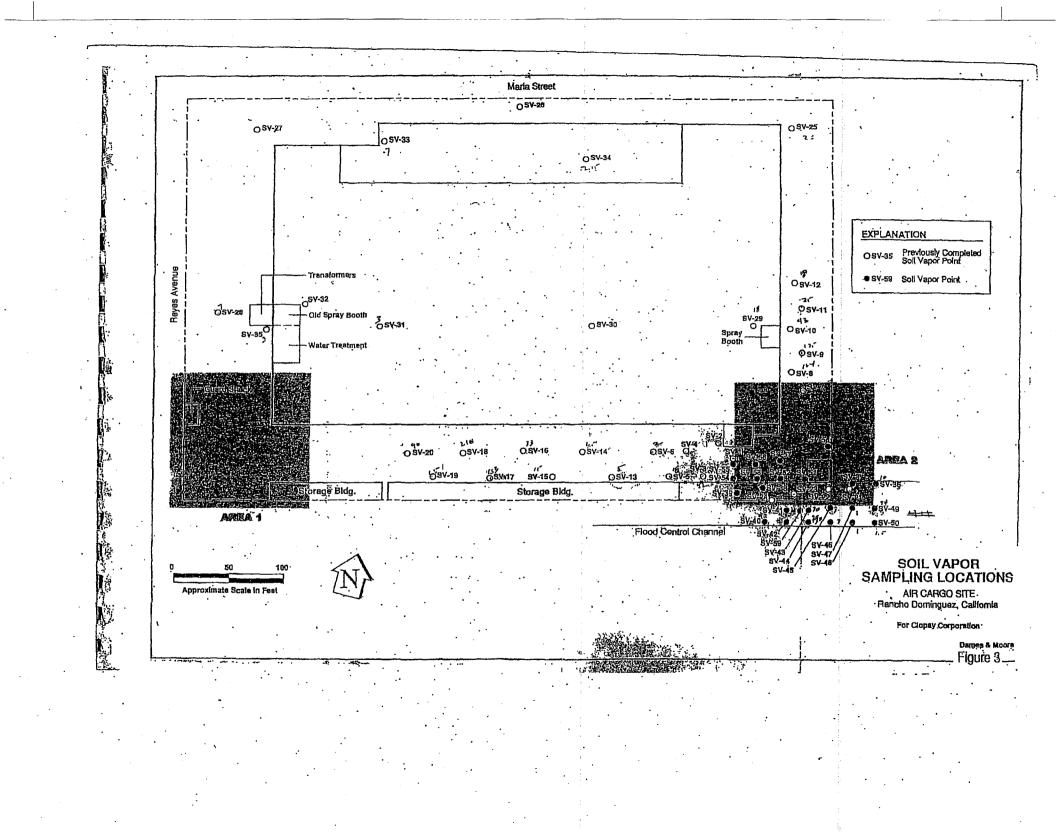
Basis for Finding No. 8

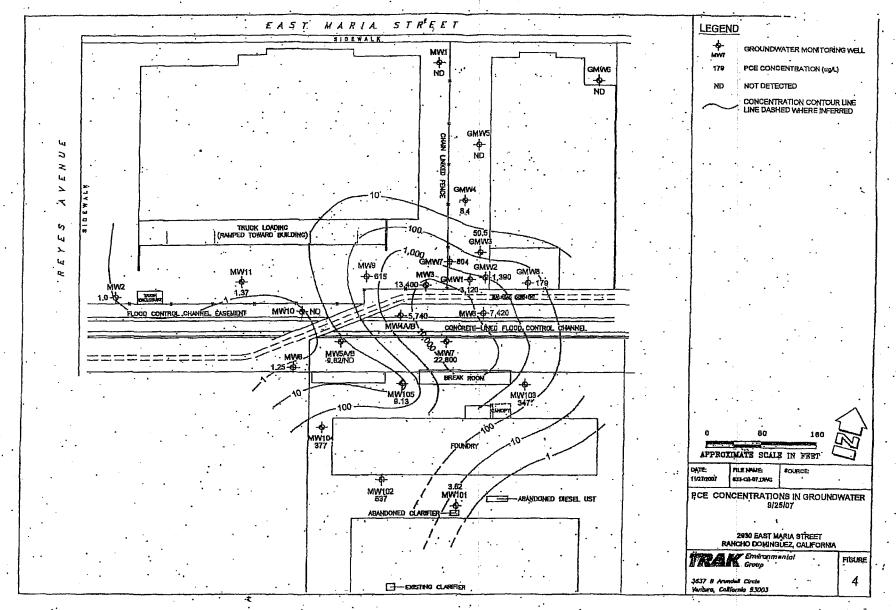
California Code of Regulations Section 15321(a) - Actions by regulatory agencies to enforce or revoke a lease, permit, license certificate, or other entitlement for use issued, adopted, or prescribed by the regulatory agency or enforcement of a law, general rule, standard, or objective, administered or adopted by the regulatory agency.

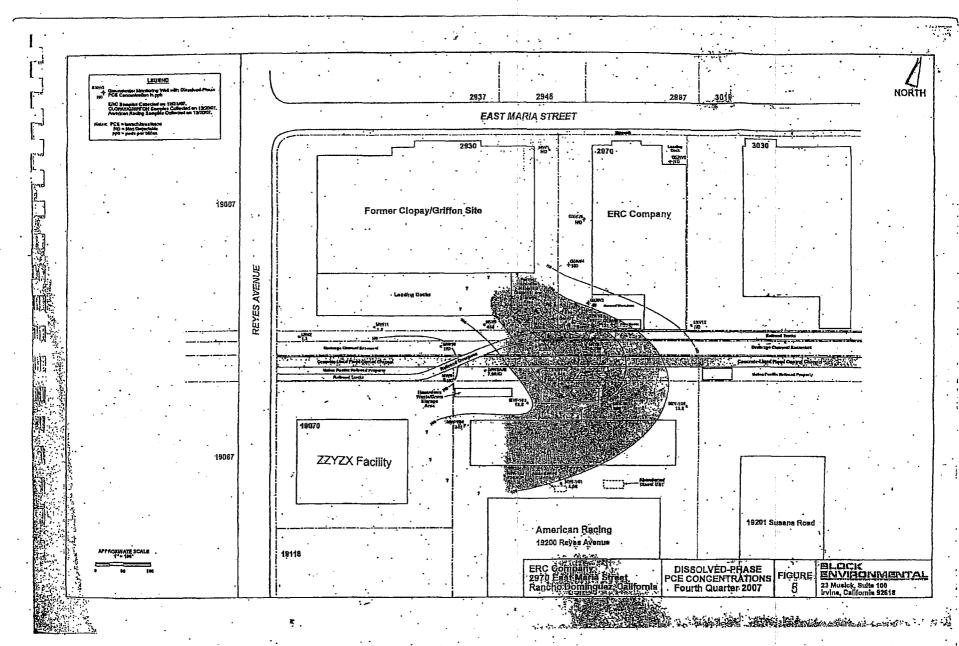
This concludes the Technical Analysis Report.











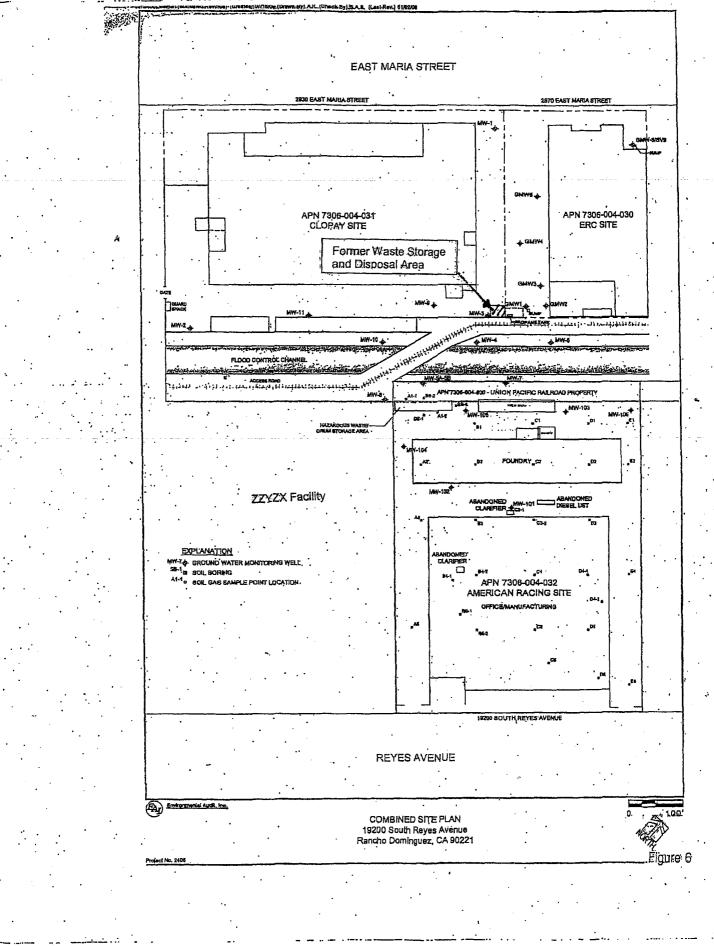


EXHIBIT 2

California Regional Water Quality Control Board

Los Angeles Region



320 W. 4th Street, Suite 200, Los Angeles, California 90013 Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.waterboards.ca.gov/losangeles

Arnold Schwarzenegger Governor

March 9, 2009

Certified Mail Return Receipt Requested Claim Nos. Listed below

Mr. Ron Kramer Chief Executive Officer Griffon Corporation 100 Jericho Quadrangle Jericho, NY 11753 (Claim No. 7008 0150 0003 7881 0534)

Mr. Ron Kramer Clopay Corporation 100 Jericho Quadrangle Jericho, NY 11753 (Claim No. 7008 0150 0003 7881 0558) Mr. Ron Kramer Lightron Corporation 100 Jericho Quadrangle Jericho, NY 11753 (Claim No. 7008 0150 0003 7881 0541)

Ms. Jannell Carodine J.O.L. ENTERPRISES, INC. 706 WEST PALMER ST COMPTON, CA 90220 (Claim No. 7008 0150 0003 7881 0565)

DRAFT CLEANUP AND ABATEMENT ORDER NO. R4-2009-018 - FORMER CLOPAY FACILITY AT 2930 EAST MARIA STREET, RANCHO DOMINGUEZ, CALIFORNIA (SLIC NO. 458, SITE ID 2048500)

Dear Mr. Kramer and Ms. Carodine:

Enclosed please find Draft Cleanup and Abatement Order No. R4-2009-018 and Draft Technical Analysis Supporting Cleanup and Abatement Order No. R4-2009-018 (Draft CAO), directing you to assess, monitor, and cleanup and abate the effects of volatile organic compounds (VOCs) and other contaminants of concern discharged to soil and groundwater at 2930 East Maria Street, Rancho Dominguez, California. This Draft CAO is prepared pursuant to section 13304 of the California Water Code.

You are hereby invited to submit written comments and/or evidence regarding this Draft CAO. Written submissions pertaining to this Draft CAO must be received by the Regional Board staff no later than 5:00 p.m. on April 9, 2009. Thereafter, staff will prepare a response to comments, recommend appropriate modifications to the Draft CAO, and submit the materials to the Executive Officer for her consideration. Oral hearings are rarely convened to consider CAOs. Therefore, please ensure that all evidence and comments that you wish staff and/or the Executive Officer to consider are included in your timely submittal.

California Environmental Protection Agency

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Mr. Ron Kramer Ms. Jannell Carodine Former Clopay Site

Should you have any questions, please contact Dr. Kwangil Lee at (213) 576-6734 or Mr. Jeffrey Hu at (213) 576-6736.

Sincerely,

Arthur G. Heath, Ph.D. Acting Assistant Executive Officer

Enclosure:

cc:

Draft Cleanup and Abatement Order R4-2009-018 Draft Technical Analysis Supporting Cleanup and Abatement Order No. R4-2009-018

Eric Block, Block Environmental (<u>eblock@blockenvironmental.com</u>) Bob Cashier, Trak Environmental Group (<u>Bob@trakenviro.com</u>) Garry Hildebrand, Los Angeles County Public Works – Flood Maintenance Division (<u>ghildeb@dpw.lacounty.gov</u>)

Perry Hughes, Cox, Castle & Nicholson LLP (<u>PHughes@coxcastle.com</u>) Gary Meyer, Parker, Milliken, Clark, O'Hara & Samuelian's (<u>GMEYER@pmcos.com</u>) Shahin Nourishad, Los Angeles County Fire Department - Health Hazard Division Joel Strafelda, Union Pacific Railroad, 1400 Douglas St., Mall Stop 1030, Omaha, NE 68179-1030

Robert Swelgin, American Racing Custom Wheels Edward S. Wactler, Blau, Kramer, Wactler & Lieberman (<u>ewactler@bkwl.com</u>)

California Environmental Protection Agency

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

STATE OF CALIFORNIA

REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2009-018

REQUIRING GRIFFON CORPORATION, CLOPAY CORPORATION, LIGHTRON AND JOL ENTERPRISES TO CLEANUP AND ABATE CONDITIONS OF SOIL, SOIL GAS AND GROUND WATER POLLUTION CAUSED BY THE RELEASE OF VOLATILE ORGANIC COMPOUNDS AT 2930 EAST MARIA STREET RANCHO DOMINGUEZ, CALIFORNIA

(FILE NO. 95-087)

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Board) finds that:

- 1. DISCHARGE OF SOLVENT WASTE. Environmental investigations completed to date indicate that previous owners and/or operators at 2930 East Maria Street, Rancho Dominguez, California, known as the former Clopay site (Site), have caused or permitted wastes from their operations, including tetrachloroethylene (PCE) among others, to be released to soil, soil gas and groundwater underlying the Site. Figure 1 shows the Site location. The relevant operations that caused the discharge of wastes at the Site include those conducted by O.B. Masco Drapery Hardware Co. (Masco) and Griffon Corporation (Griffon) from 1969 until 1990. These released wastes from the Site have caused and threaten to cause conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for chlorinated solvent chemical waste constituents set forth in Water Quality Control Plan (Basin Plan) for the Coastal Watersheds of Los Angeles and Ventura Counties.
- 2. RESPONSIBLE PARTIES. JoL Enterprises owned and developed the Site in 1969 and sold the Site to Laskey Trustees in late November 1998. Masco, a company owned by members of JoL Enterprises, leased the Site and conducted its operations on it from 1969 to 1971. In 1971, Griffon, through its predecessor (Instrument System Corporation) or wholly-owned subsidiaries (Litghtron and Clopay Corporation), acquired Masco and operated on the Site until August 1990. Evidence shows that the release of wastes occurred prior to 1998. Griffon Corporation, Clopay Corporation, Lightron, and JoL Enterprises, are collectively referred to as "Dischargers" in this Cleanup and Abatement Order.

SOLVENT WASTE DISCHARGES

3. EVIDENCE, STATUS, AND IMPACT OF WASTE DISCHARGES. Records and completed environmental assessment reports indicate that Masco and Griffon used, stored, and/or improperly disposed of chlorinated solvents and other wastes at the Site during their occupancy from 1969 to 1990. Soil and groundwater investigations by

March 9, 2009

Dames & Moore in the 1990's detected elevated levels of PCE among other volatile organic compounds (VOCs) and petroleum hydrocarbons in both soils and groundwater at two identified areas of concern on the Site, referred as Area 1 and Area 2. Area 1 is an isolated area of concern with VOCs in both soil and groundwater located in the southern portion of the Site. Area 2 is located in the southeastern portion of the Site, centered at the former waste storage and disposal area (also referred as the drum storage pad) (see Figure 2). The highest PCE concentrations in soil were detected in Area 2 at 2,800,000 micrograms per kilogram (μ g/kg) at 1 foot below ground surface (bgs), directly beneath the former drum storage pad (at boring B-5, Figure 2). Subsequent subsurface investigations by Griffon/Clopay, ERC, and American Racing Equipment have determined that the subsurface VOCs impacts are greater than previously known. The contamination extends and surrounds Area 2, including part of adjacent ERC property, the adjacent railroad spur and flood control channel easement, as well as part of American Racing Equipment property adjacent to the flood control channel off Area 2.

The most frequently-occurring VOCs detected include PCE, trichloroethene (TCE), and 1,1-dichloroethene (1,1 DCE), with PCE being the predominant contaminant. Site investigations have also found PCE, TCE and their associated chemical breakdown products, *cis*-1,2-dichloroethylene (*cis*-1,2-DCE), *trans*-1,2-dichloroethylene (t-DCE), 1,1,1-trichloroethylane (1,1,1-TCA) and 1,1,2-trichloroethylane (1,1,2-TCA) in ground water underlying the Site in concentrations in excess of applicable Basin Plan water quality objectives.

Griffon, ERC, and American Racing Equipment have conducted additional subsurface environmental investigations for other sources and contributions to the identified VOCs impact. Environmental investigations to date have not revealed significant offsite VOCs source(s) that contributed to the PCE-dominant VOCs impact in the soil, soil gas, and groundwater underlying the Site and its vicinities.

- 4. BASIN PLAN VIOLATIONS: The discharge of chlorinated solvent waste constituents and petroleum wastes from the former Clopay Site is a violation of General Prohibition of Waste Discharge Requirements of the Water Quality Control Plan for the Los Angeles Region (4) (Basin Plan, page 4-31). General Prohibition states "Neither the treatment nor the discharge of waste shall create pollution, contamination or nuisance as defined by Section 13050 of the California Water Code." Also, the discharge is a violation of Regional Objectives for Groundwaters of the Basin Plan (page 3-18); it states, "Groundwaters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use."
- 5. STATUS OF SITE INVESTIGATION. Several subsurface environmental investigations have been carried out at the former Clopay site and its vicinities. The Dischargers not have yet completed site investigations needed to completely delineate the vertical and horizontal extent of VOCs impact in soil, soil gas, and groundwater. The Dischargers must establish the vertical and horizontal extent of chlorinated solvent wastes (PCE, TCE & their degradation products) and any other waste constituents with sufficient detail to identify affected or threatened waters of the state and provide the basis

for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Board to be necessary.

6. CLEANUP AND ABATEMENT ACTIONS. Griffon has neither completed the required remedial actions on the Site to meet cleanup goals, nor initiated any offsite cleanup efforts to remediate the VOC-impact. Griffon conducted two excavations to remove the top 20 feet of impacted soils at Area 1, in August 1998 and May 2006, respectively. During the two excavation actions, Griffon removed contaminated soils from the top 20 feet. However, the soil conditions between 20 feet below ground surface (bgs) and the groundwater remain unknown. Griffon performed soil and groundwater remediation at Area 2 of the former Clopay Site from August 1998 to October 2000 using a soil vapor extraction (SVE) and air sparging (AS) system. The soil confirmation sampling conducted in 2001 and other subsurface investigation and monitoring reports show that the VOCs impact in soil and groundwater quality protection. No offsite soil, soil gas, and groundwater cleanup actions have been taken.

STATUTORY AND REGULATORY FINDINGS

- 7. LEGAL AND REGULATORY AUTHORITY. This Cleanup and Abatement Order is based on (1) Section 13267 and Chapter 5, Enforcement and Implementation commencing with Section 13300 of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000); (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the Basin Plan adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies, including State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304); and (5) relevant standards, criteria, and advisories adopted by other State of California and federal agencies.
- 8. California Environmental Quality Act (CEQA) EXEMPTION. This enforcement action is exempt from the provisions of the CEQA in accordance with Section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, Title 14 of the California Code of Regulations.
- 9. The document entitled "Draft Technical Analysis Supporting Cleanup and Abatement Order No. R4-2009-018", dated March 3, 2009, is herein incorporated by reference as additional findings in support of this order.

ORDER AND DIRECTIVES

IT IS HEREBY ORDERED, pursuant to California Water Code Section 13304, that Griffon Corporation, Clopay Corporation, Lightron, and JoL Enterprises (Dischargers), shall

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adequately assess, monitor, report, and cleanup and abate the effects of VOCs and petroleum and other contaminants of concern discharged to soil and groundwater.

Compliance with this order shall include, but not be limited to completing the tasks listed below. The Dischargers shall:

Development of a Site Conceptual Model: Develop and submit a site conceptual model (SCM). The SCM shall include a written presentation with graphic illustrations of the release scenario and the dynamic distribution of waste at the former Clopay site and its vicinities. Dischargers shall construct the SCM based on actual data collected from the former Clopay site, ERC site, and American Racing Equipment. The SCM shall be updated, as new information becomes available. Updates to the SCM shall be included in all future technical reports submitted. The first SCM is due no later than May 29, 2009.

Delineation of Contamination in the Unsaturated and Saturated Zone: Completely delineate the extent of soil, soil gas, and groundwater contamination caused by the release of VOCs, and petroleum and other contaminants of concern from the former Clopay site. The Dischargers shall submit a Work Plan for a complete delineation of the impact of VOCs released from the former Clopay site by April 30, 2009. The Work Plan must include the following areas:

- Area 1. Conduct verification soil and soil gas sampling in soils between 20 feet bgs to groundwater table, to demonstrate that no remaining VOCs are at levels threatening human health or groundwater quality.
- Area 2. Completely delineate the onsite and offsite impact of VOCs release, both laterally and vertically, from Area 2, in soil gas, soil, and groundwater, including the former Clopay Site, ERC site, rail road spur, flood control channel easement, American Racing Equipment site, and any other offsite impacted areas.

The Work Plan shall also include a protocol for identifying the cause of local groundwater mounding at MW-4 and its vicinity.

Groundwater Monitoring: To track the dynamic migration of the VOCs-plume and assess the progress of cleanup activities, the Dischargers shall implement a quarterly groundwater monitoring program which shall cover the existing groundwater monitoring wells installed by Griffon/Clopay, ERC, and American Racing Equipment, and any additional groundwater monitoring wells to be installed in the future. The quarterly groundwater monitoring reports shall be submitted according to the following schedule with the next report due by April 15, 2009.

Quarter	Report Due Date
January 1 - March 31	April 15
April 1 - June 30	July 15
July 1 - September 30	October 15
October 1 - December 31	January 15

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- **Remedial Action:** Initiate a phased cleanup and abatement program with the cleanup of any remaining soil and groundwater contamination and the abatement of threatened beneficial uses of groundwater and pollution sources as highest priority. Specifically, Dischargers must:
 - Immediately resume the Area 2 onsite subsurface remediation activities stalled since October 2000. The soil vapor extraction and air sparging (SVE/AS) system shall be re-installed and up-and-running by April 30, 2009.

• Develop a comprehensive Remedial Action Plan (RAP) and submit it for Regional Board's review by May 29, 2009. The RAP shall include:

- 1) A program for effectively removing VOCs sources in all the areas impacted by the VOCs released from the former Clopay site;
- 2) A program for preventing the continuing migration of the existing VOCs-plume in groundwater;
- 3) Cleanup goals and a protocol and schedule to reach them.
- 4) Use of the updated SCM as a basis to modify the remedial actions.
- Submit quarterly remediation progress reports to this Regional Board. The quarterly remediation progress reports shall document all performance data including, but not limited to, total operational time, total VOCs mass removal, among others. The results obtained during the previous quarter shall be submitted according to the following schedule with the next report due by April 15, 2009.

Quarter	• •	Report Due Date
January 1 - March 31		April 15
April 1 - June 30	• • •	July 15
July 1 - September 30		October 15
October 1 - December 31		January 15

GeoTracker Database: Dischargers shall submit site data via the internet to the SWRCB's GeoTracker database. The required data include laboratory data (i.e., soil or water chemical analysis), the latitude and longitude of groundwater monitoring wells accurate to within one meter, the surveyed elevation relative to mean sea level of any groundwater monitoring well sampled, boring logs, site maps, and reports.

Contractor/Consultant Qualification: A California registered civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals.

Access for Oversight Activities: The Regional Board's authorized representative(s) shall be allowed:

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Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;

Access to copy any records that are stored under the conditions of this Order; Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

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.

Change of Ownership: The Dischargers shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of their company or the Site. In the event of a change in ownership, that Discharger also shall provide a 30-day advance notice, by letter, to the succeeding owner of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.

Well Abandonment: Abandonment of any groundwater well(s) at the site must be approved by and reported to the Executive Officer in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With written justification, the Executive Officer may approve the abandonment of groundwater wells without replacement. When a well is removed, all work shall be completed in accordance with California Monitoring Well Standards, Bulletin 74-90, Part III, Sections 16-19.

GENERAL PROVISIONS

The following provisions shall apply:

- This Order requires cleanup of the site in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, and other applicable plans, policies, and regulations.
- If the Dischargers violate this Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction.
- If the Dischargers violate this Order, the Dischargers may also be liable civilly in a monetary amount provided by the Water Code.
- 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.

Page 7

This Order is not intended to permit or allow the Dischargers to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this 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 statues or required by other agencies.

This Order may be rescinded or modified. Grounds for such action would include, but not be limited to the occurrence of any of the following:

• A determination by the Executive Officer or the Regional Board that additional Dischargers has been identified to be responsible for or to have contributed to the contamination of the VOCs-plume in the groundwater beneath the former Clopay Site and its vicinity;

A determination by the Executive Officer that additional contamination or risk from the existing plume is present at the Site or its vicinity;

A determination by the Executive Officer that the level of VOCs- impact at the area of concern has been reduced to all applicable cleanup levels.

This Order is not intended to interfere with the right of Dischargers, if it is determined in the future that other parties have responsibility for the contamination of the VOCs- plume in the groundwater beneath the former Clopay Site and its vicinity.

The Regional Board, through its Executive Officer, may revise this Order as additional information becomes available. Upon request by the Dischargers, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Dischargers under this Order.

This Order in no way limits the authority of the Regional Board, as contained in the California Water Code, to require additional investigation and cleanup pertinent to this project. It is the intent of this Regional Board to issue Waste Discharge Requirements or other Orders pursuant to Sections 13260, 13304, and 13350 of the California Water Code when appropriate to facilitate this cleanup and abatement activity. Additionally, continued monitoring of the groundwater quality beneath the areas of concern after the completion of this cleanup and abatement activity may be required.

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10. Section 13304 of the California Water Code allows the Regional Board to recover reasonable expenses from responsible parties to oversee cleanup and abatement of unregulated discharges which have adversely affected waters of the State.

Ordered by: _	· · ·
	Tracy J. Egoscue Executive Officer

Date: March 9, 2009

DRAFT TECHNICAL ANALYSIS SUPPORTING CLEANUP AND ABATEMENT ORDER NO. R4-2009-018

This technical analysis provides a summary of factual evidence supporting issuance of Draft Cleanup and Abatement Order (CAO) R4-2009-018 to Griffon Corporation, Clopay Corporation, Lightron, and JoL Enterprises, for discharges from the property at 2930 East Maria Street, Rancho Dominguez, California, known as the former Clopay site.

March 9, 2009

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March 3, 2009

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I. BACKGROUND

The subject site contains a single-story industrial building, approximately 113,694 square feet, located at 2930 East Maria Street, Rancho Dominguez, California (Figure 1. Site Location). The former Clopay site abuts ERC Company (ERC) to the east at 2970 East Maria Street, and the railroad tracks and drainage channel to the south. American Racing Equipment, at 19200 South Reyes Avenue, is immediately across the railroad tracks and drainage channel.

Environmental investigations completed to date indicate that previous operators on the property (Property) at 2930 East Maria Street, Rancho Dominguez, California, known as the former Clopay site (Site), have caused or permitted wastes from their operations, including tetrachloroethylene (PCE) among others, to be discharged to groundwater underlying the Site and to be deposited in soil at the Site from which wastes have been and probably will be discharged to groundwater.

The operations that caused the discharge of the wastes at the Site include those conducted by O.B. Masco Drapery Hardware Co. (Masco) and Griffon Corporation (Griffon) from 1969 until 1990. These released wastes from the Site have caused and threaten to cause conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for chlorinated solvent chemical waste constituents set forth in Water Quality Control Plan (Basin Plan) for the Coastal Watersheds of Los Angeles and Ventura Counties.

Further assessment and cleanup and abatement is necessary to protect ground water quality and beneficial uses as required under Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*).

II. BASIS FOR FINDINGS

- 1. **DISCHARGE OF SOLVENT WASTE.** Records and environmental investigation reports indicate that Griffon used, stored, and improperly disposed of wastes, including chlorinated solvents at the subject Property.
 - a. According to an industrial waste survey conducted by Los Angeles County Sanitation District in March 1970 and an environmental due diligence investigation by M. B. Gilbert Associates (April 1990), both O.B. Masco and Clopay, during their occupation of the Property, conducted similar operations involving metal parts processing, painting, degreasing in cold chlorinated solvent, and paint stripping with caustic solvent.
 - b. Records and an inspection report from Los Angeles County Department of Health Services (LACDHS), dated October 22, 1985 (during Lightron's occupation of the Property), indicate that hazardous wastes were improperly stored and disposed of at the Property. Specifically, violations cited in the inspection report include outdoor oil spillage onto soil, disposal of reaming waste outdoors to the ground and improper storage of hazardous wastes onto permeable surface. According to the LACDHS inspection report, chemicals and hazardous wastes stored and/or

used at the Property are painter's thinner, spent oil, spent solvents, cutting oil, motor oil, degreaser, and paint.

c. M. B. Gilbert Associates (April 1990) reported that an approximately 15-foot square area of concrete within a bermed area (also referred as the drum storage pad, See Figure 2) located in the southeast corner of the Property was covered with absorbent material and was significantly stained. Oil sheen was observed in parts of the bermed area, and dark-colored staining covered the rest of the bermed area.

- d. M. B. Gilbert Associates (April 1990) also reported an area of soil approximately 10-foot square located near the southwest corner of the subject Property was significantly stained. The stained soil, extended more than three inches beneath the ground surface, was located outside the main fencing that encloses the building and storage areas at the subject Property.
- e. A waste profiling document (Waste Data Profile #1391), record GR02629 (Dated March 13, 1991), from LACDHS, further indicates that PCE, 1,1,1-trichloroethane (1,1,1-TCA), among other VOCs, were detected in Clopay's paint and sand blasting material processed at the Property.

The Dischargers caused or permitted wastes from their previous onsite operations, including PCE, to be discharged to groundwater underlying the Site and to be deposited in soil at the Site from which waste has been and probably will be discharged to ground water. These discharges have caused and threaten to cause conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for chlorinated solvent chemical waste constituents.

Basis for Finding No. 1

- Dames & Moore, April 11, 1995. Report Soil and Groundwater Investigation for Clopay Corporation, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California
- Dames & Moore, July 22, 1997. Environmental Assessment Report, Air Cargo Site, 2930
 Maria Street, Rancho Dominguez, California
- Water Quality Control Plan for the Los Angeles Basin (Basin Plan)

The Site is located in the Central Hydrologic Subarea (HSA) (405.15) and Los Angeles Costal Plain Central Groundwater Basin; groundwater in the Central Basin is designated as having existing beneficial uses for municipal and domestic water supply (MUN)^{1, 2}, agricultural supply water (AGR), industrial process supply (PROC), and industrial service supply (IND). The Basin Plan contains numeric water quality objectives³ for chemical constituents to protect groundwaters designated for MUN. The numeric objectives are

¹ See Water Quality Control Plan for the Los Angeles Basin (Basin Plan), Page 2-1. The Basin Plan defines MUN as "Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply."

² Basin Plan, Table 2-2 on page 2-17.

³ "Water quality objectives" are defined in Water Code section 13050(h) as "the limits or levels water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

derived from primary Maximum Contaminant Levels (MCLs)⁴ established by the Department of Public Health Services (Department) in Title 22 of the California Code of Regulations.⁵ In general, the Department establishes MCLs to ensure the safety of public drinking water supplies at the point of use, (e.g. at the tap.)

Elevated PCE concentrations was present in soil at 2,800,000 micrograms per kilogram (μg /kg) at 1 feet below ground surface (bgs) sampled in April 1992 at the boring B-5, located within the former drum storage pad. PCE and its associated chemical breakdown products, trichloroethylene (TCE), *cis*-1,2-dichloroethylene (*cis*-1,2-DCE), *trans*-1,2-dichloroethylene (*trans*-1,2-DCE) are present in the groundwater at the Site in concentrations above the applicable Basin Plan water quality objectives:

Waste Constituent	Basin Plan Water Quality Objective (Micrograms per liter or µg/L)	Ground Water Concentration, as of 12/19/2007 (µg/L)
PCE	5	14,000
TCE	5	1,100
cis-1,2-DCE	6	3,700
trans-1,2-DCE	10	44

The types and levels of waste constituents found in the soil, soil gas, and groundwater are associated with use, storage, and disposal of chlorinated wastes at the Site. Based on the foregoing, the discharge of waste at the Site has caused the presence of waste constituents in the groundwater in concentrations in excess of applicable public heath protective water quality objectives and has therefore created a condition of pollution⁶ and contamination⁷ in waters of the State.

⁷ "Contamination" is defined in Water Code section 13050(k) as an impairment of the quality

of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

⁴ MCLs (Maximum Contaminant Levels) are public health-protective drinking water standards to be met by public water systems. MCLs take into account not only chemicals' health risks but also factors such as their detectability and treatability, as well as the costs of treatment. Primary MCLs can be found in Title 22 California Code of Regulations (CCR) sections 64431 - 64444. Secondary MCLS address the taste, odor, or appearance of drinking water, and are found in 22 CCR section 64449.

⁵ Basin Plan, Pages 3-8 to 3-10, and Table 3-7. The Basin Plan provides that "Water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the limits specified in the following provisions of Title 22 of California Code of Regulations which are incorporated by reference into this plan: ... Table 64444-A of Section 64444 (Organic Chemicals). This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. (See Tables 3-5, 3-6, and 3-7.)"

⁶ "Pollution" is defined in Water Code section 13050 (1) as "an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses, (B) Facilities which serve these beneficial uses." Pollution" may include "contamination."

The discharge of waste at the Site has also created or threatens to create a condition of nuisance⁸ in waters of the State. The presence of waste constituents in ground water in concentrations in excess of applicable public heath protective water quality objectives is potentially injurious to the public health⁹. The interference and complications with the use of groundwater for drinking water purposes arising from the presence of waste constituents in concentrations well in excess of applicable water quality objectives, can be considered an obstruction to the free use of property as provided in Water Code Section 13050(m).

2. **RESPONSIBLE PARTIES.** Griffon Corporation, Clopay Corporation, Lightron, and JoL Enterprises, are the responsible parties, and are collectively referred to as "Dischargers" in this Cleanup and Abatement Order.

Basis for Finding No. 2

- Project Files.
- Secretary of the State Business Portal, Business License Information Search Website.

California Water Code section 13304 authorizes the Regional Board to order any person who "causes or permits" waste to be discharged where it "creates or threatens to create a condition of pollution or nuisance" to clean up or abate the effects of the waste. The State Water Resources Control Board (State Board) in a series of precedential orders has established general principles regarding naming responsible parties. These principles can be summarized as follows:

 In general, name all persons who have caused or permitted a discharge (Orders Nos. WQ 85-7 and 86-16).

• "Discharge" is to be construed broadly to include both active discharges and continuing discharges (Order No. WQ 86-2).

There must be a reasonable basis for naming a responsible party (i.e., substantial evidence). It is inappropriate to name persons who are only remotely related to the problem such as suppliers and distributors of gasoline (WQ 85-7, 86-16, 87-1, 89-13, and 90-2).

⁸ Nuisance is defined in Water Code section 13050(m) ".... anything which: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (3) occurs during or as a result of the treatment or disposal of wastes."

⁹ The United States Environmental Protection Agency (USEPA) classifies PCE and TCE as probable human carcinogens.

Page 6

The Regional Board has applied these principles in determining the parties that should be named in this cleanup and abatement order. The following history of ownership and occupancy has established the basis for naming the Dischargers.

Historically, JoL Enterprises owned and developed the 2930 East Maria Street property in 1969. O.B. Masco Drapery Hardware Co. (Masco), a company owned by members of JoL Enterprises, leased the property and conducted its operations on it from 1969 to 1971. In 1971, Griffon, through its predecessor or wholly-owned subsidiaries, acquired Masco and operated on the Property until August 1990. In late 1998, JoL Enterprises sold the Property to Laskey Trustees who has been the fee title holder of the Property since. The property ownership and leasehold history is as follows:

- a. In 1969, JoL Enterprises developed the Property and leased it to O.B. Masco, a company that was owned and operated by the members of JoL Enterprise.
- b. In 1971, Griffon's predecessor, Instrument Systems Corporation was founded in 1959 as Waldorf Controls Corporation, but operated under the name Instrument Systems Corporation before the endo of 1959. Instrument Systems Corporation changed its name to Griffon in 1995. Griffon acquired O.B. Masco and took over its lease at the Property. In August 1979, Griffon assigned its rights under the lease to its subsidiary, Lightron Corporation (Lightron).
 - . In 1986, Griffon acquired a 100% interest in Clopay Corporation (Clopay), a manufacturer of curtain and drapery fixtures, and garage doors.
- d. In 1987, Lightron assigned the leasehold interest in the Property to Clopay, its sister corporation.
- e. In August 1990, Clopay subleased its position to Air Cargo, a manufacturer of air freight equipment and a wholly-owned subsidiary of Telair International Inc. Telair International Inc. is wholly-owned by Teleflex Inc.
- f. In November 1998, JoL Enterprises sold the subject property to Laskey Trustees, the current owner of the Property.
- g. In September 1999, Air Cargo ended its sublease with Clopay and entered into a new lease with Laskey Trustees.

In sum, JoL Enterprises was the fee title owner of the Site from 1969 to 1998. Masco (from 1969 to 1971) and Griffon (from 1971 to 1990) leased the Site and conducted business with same operations involving the use of chlorinated solvents during their occupancy.

The Regional Board may hold landowners accountable for discharges which occur or occurred on the landowner's property based on three criteria: (1) ownership of the land; (2) knowledge of the activity causing the discharge; and (3) the ability to control the activity.

Draft Technical Analysis

Cleanup and Abatement Order R4-2009-018

JoL Enterprises meets all three of these criteria and should be named in the cleanup and abatement order as a responsible party.

Although the exact cause and dates of the release is unknown, evidence, as summarized in the subsequent sections, shows that the release of wastes occurred prior to 1998. The types and levels of waste constituents found in the soil, soil gas, and groundwater at the Site can be attributed to unauthorized waste releases from the former Clopay facility during operations conducted by Masco, Lightron, and/or Clopay. Lightron, Clopay, and Griffon have done business as operators at the Site and have knowledge of the activity causing the discharge of wastes. Therefore Lightron, Clopay, and/or Griffon meet the criteria and should be named in the cleanup and abatement order as a responsible party.

3. EVIDENCE, STATUS, AND IMPACT OF WASTE DISCHARGES.

VOCs have been detected in the subsurface soil, soil gas, and groundwater underlying the former Clopay site and its abutting properties including the ERC site, easement of railroad tracks and drainage channel, and American Racing Equipment. The most frequently-occurring VOCs detected include PCE, trichloroethene TCE, and 1,1-DCE.

Basis for Finding No. 3

- Dames & Moore, April 11, 1995. Report Soil and Groundwater Investigation for Clopay Corporation, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California
- Dames & Moore, July 22, 1997. Environmental Assessment Report, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California
- TRAK Environmental Group, February 17, 2006. Report of Groundwater Monitoring Well Installation and Forth Quarter Status Report. Former Clopay Site, 2930 East Maria Street, Rancho Dominguez, California
- Block Environmental, February 21, 2006. Report of Additional Subsurface Investigation Activities, ERC Company, 2970 Maria Street, Rancho Dominguez, California
- Environmental Audit, Inc., May 15, 2007. Site Assessment Report, American Racing Equipment, 19200 South Reyes Avenue, Rancho Dominguez, California
- TRAK Environmental Group, October 31, 2007. Third Quarter Status Report. Former Clopay Site, 2930 East Maria Street, Rancho Dominguez, California
- Block Environmental, January 24, 2008. Forth Quarter 2007 Groundwater Monitoring and Sampling Report, ERC Company, 2970 Maria Street, Rancho Dominguez, California
- Environmental Audit, Inc., January 31, 2008. Groundwater Monitoring Report Forth Quarter 2007 and Report on Installation of Groundwater Well MW-106, American Racing Equipment, 19200 South Reyes Avenue, Rancho Dominguez, California
- Water Quality Control Plan for the Los Angeles Basin (Basin Plan, 1995)

Draft Technical Analysis

Cleanup and Abatement Order R4-2009-018

3.1 Subsurface Investigations and Remediation at Clopay (Griffon) Site

Subsurface Investigation

From April 1992 to May 1997, Dames & Moore, on behalf of Clopay, conducted several phased subsurface soil and groundwater investigations at the Property. Their findings are as follows:

• Two areas of concern, referred as Area 1 and Area 2, are identified as impacted areas by VOCs in soil, soil gas, and groundwater. Area 1 is an isolated area of concern with VOCs in both soil and groundwater located in the southern portion of the Property. Area 2 is located in the southeastern portion of the Property, centered at former waste storage and disposal area (also referred as the drum storage pad) (see Figure 2).

- In Area 1, the principal contaminant detected in soil was PCE. Low to trace concentrations of TCE, methylene chloride, toluene, and 1,1,1-TCA were also detected. PCE in soil ranged from 30 to 1,840 micrograms per kilogram (μ g/kg, also referred as parts per billion by weight or ppb). In addition, total recoverable petroleum hydrocarbons (TRPH) was detected in shallow soil at a concentration up to 22,000 milligrams per kilogram (mg/kg), or 22,000,000 ppb by weight. Dissolved PCE level in the underlying groundwater (monitoring wells MW-2 and MW-11) has been steadily below or near the non-detected (ND) levels in the recent monitoring events including March 2007.
- In Area 2, PCE was the principal detected contaminant, as in Area 1. The highest levels of contaminants were found directly beneath the drum storage pad (Boring B-5 and B-18) located at the southeast corner of the Property (see Figure 2). The highest PCE concentrations in soil at B-5 were detected at 2,800,000 ppb at 1 foot below ground surface (bgs), 11,000 ppb at 20 feet bgs, and 1,300 ppb at 30 bgs. PCE concentration in soil at B-18 was 54,158 ppb at 2.0 feet bgs.
- Although PCE was the major contaminant detected in Area 2, other contaminants of concern were also detected at various points, including but not limited to 1,1-DCA, (233 ppb at 25-ft bgs, B-20), 1,1-DCE, (750 ppb at 30-ft bgs, B-18), methylene chloride (122 ppb at 20-ft bgs, B-21), 1,1,2,2,-PCE (1,800 ppb at 5-ft bgs, B-6), toluene (39,000 ppb at 1-ft bgs, B-5), ethylbenzene 13,000 ppb, B-5), xylenes (54,000 ppb, B-5), 1,1,1-TCA (140,000 ppb at 1-ft bgs, B-5), 1,1,2-TCA (137 ppb at 10-ft bgs, B-25), and TCE (4,400 ppb at 1-ft bgs, B-5). In addition to VOCs, 8,700,000 ppb of heavy oil and 450,000 ppb of Stoddard solvent were also detected at 1-foot bgs at B-5.
- Generally, the highest contaminant levels were detected near ground surface and the lowest contaminant levels were detected near the groundwater table at the time of the Dames & Moore's investigation in 1990's. Contaminant concentrations generally decrease with distance from the former drum storage pad.

Draft Technical Analysis

Cleanup and Abatement Order R4-2009-018

• Three onsite monitoring wells, MW-1, MW-2, and MW-3, were installed during December 1994 investigation. Groundwater sampling data from the three wells indicated that only MW-3 near the former drum storage pad contained VOCs, with PCE concentration of 35 ppb and TCE of 2.5 ppb at that time, much lower compared to the recent PCE concentrations of 13,400 ppb and TCE of 302 ppb at as of September 25, 1997 (TRAK, October 31, 2007).

An offsite groundwater monitoring well MW-4 was installed in May 1997 on the Flood Control Easement approximately 50 feet south of the former drum storage pad. PCE, TCE, and 1,1-DCE were detected at 10,000 ppb, 340 ppb, and 1,900 ppb, respectively.

Fifty-nine soil vapor probes were installed on the Clopay site and along the rail spur and flood control channel access road near the former drum storage pad during the 1992 and 1994 investigations. Analytical results of the soil vapor samples indicated that PCE was the major compound detected. These test results demonstrated that the highest VOC concentrations are located south and southwest of the former drum storage pad (Figure 3).

Since 1997, PHR Environmental Consultants, Inc. and its successor Trak Environmental have conducted additional onsite and offsite subsurface investigations and groundwater monitoring. The findings are summarized below:

- Six groundwater monitoring wells, namely MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11, were installed onsite and offsite during October and December 2005.
- At MW-6, a well on the railroad spur approximately 60 feet southeast of the former drum storage pad, 2,700 μg/kg and 1,340 μg/kg of PCE were detected at 25 feet bgs and 40 feet bgs, two clayey layers, respectively.
- At MW-7, a well across the flood control channel south of the former drum storage pad, elevated PCE levels up to 7,670 μ g/kg in soil was detected at 40 feet bgs, a clayey layer. Groundwater was reported at 38.6 to 38.8 feet bgs in 2005.
- The September 2007 groundwater sampling results indicate that PCE concentrations are 13,400 ppb in MW-3, an onsite monitoring well, and 5,740 ppb in MW-4B and 22,800 ppb in MW-7, two offsite monitoring wells south of the former drum storage pad (Figure 4).

Remediation at Clopay (Griffon) Site

Griffon conducted limited remediation work at the Site:

AREA 1 - In August 1998, the top 3-foot of VOCs-impacted soil in Area 1 was excavated. The VOCs-impacted soils between 3-foot below ground surface (bgs) and 20 feet bgs were removed in April and May 2006. Additional soil sampling is required to verify the soil conditions between 20 feet bgs and groundwater table.

AREA 2 - Clopay began soil and groundwater remediation at the in Area 2 of the former Clopay facility from August 1998 to October 2000. During this active remediation period, VOCs in soil and groundwater were being effectively removed using a soil vapor extraction (SVE) and air sparging (AS) system. The soil and groundwater cleanup has been stalled since October 2000 due to an access agreement dispute with Air Cargo. Soil confirmation sampling was performed and the results were submitted to Regional Board in February 2001. The soil confirmation sampling results showed that the impact in soil was still at levels threatening human health and groundwater quality. For example, PCE was detected at 6,400 micrograms per kilogram mg/kg at 25 feet bgs. The VOCs-impact in groundwater was also not effectively abated. Dissolved phase VOCs in groundwater in Area 2 are still significantly higher than the cleanup goals, maximum contaminant levels (MCLs), as indicated by the aforementioned March 2007 sampling results.

3.2 Subsurface Investigations at ERC Site

Block Environmental, on behalf of ERC, has conducted phased environmental investigations at the ERC site since 2001. VOCs have been mainly detected in soils and groundwater on the southwest portion of the ERC property near Area 2 of the Clopay site (Figure 5). The findings from the aforementioned investigations indicate the following:

- VOCs have been detected in soils and groundwater on the southwest portion of the ERC property. PCE was the predominant compound along with others VOCs that appear to be the degraded daughter compounds of PCE.
- Among eight onsite monitoring wells, elevated dissolved-phase PCE concentrations were detected in monitoring wells GMW-1, GMW-2, GMW-3, GMW7 and GMW8 located in the southwest corner of the ERC property (see Figure 5).
- PCE was detected in all of the soil samples collected from borings GMW-1, GMW-2 and GMW-3 from 5 ft bgs through 60 ft bgs in concentrations ranging from 5.4 ppb to 6,000 ppb.
- The concentrations of VOCs in both soil and groundwater are the highest at the southwest corner of the ERC property and show a general decrease trend as the distance increases from the corner.
- No records indicate potential link between the onsite activities to the detection of the subsurface VOCs impact (mainly PCE).
- ERC has characterized on site VOCs impact in both vadose zone soil and shallow groundwater aquifer on the ERC property.

3.3 Subsurface Investigation at American Racing Site

American Racing Equipment (ARE) has been conducting subsurface investigation and cleanup at the ARE site since July 2006. Results from completed soil gas survey, soil boring and groundwater well installation are summarized as below:

- The December 18, 2006 Soil Gas Survey Report prepared by Environmental Audit, Inc. indicates that elevated PCE levels in soil vapor are only present at sampling locations near the groundwater well MW-7, showing elevated PCE concentration of 34,600 ppb as of December 20, 2005; MW-7 was installed on ARE facility by Clopay as part of their off-site delineation efforts across the flood control channel.
- Followed the soil gas survey, ARE conducted a soil and groundwater investigation in March, August, and December 2007. During this field investigations, three onsite soil borings, SB-1, SB-2, and SB-3, were advanced and six onsite groundwater monitoring wells, MW-101 trough MW-106 were installed (Figure 6). The findings of the subsurface investigation indicate that primarily PCE, and seemingly its daughter compounds TCE, 1,1-DCE, and cis-1,2-DCE are present in soil and groundwater predominantly at sampling locations between the Foundry and the Flood Control Channel. PCE was the only VOCs detected in the unsaturated soil.
- The soil gas, soil and groundwater investigation completed to date at the ARE site has not revealed significant VOCs sources in the vadose zone soil (unsaturated soil).

3.4 Summary of Findings from Subsurface Investigations

Regional Board staff have reviewed and evaluated technical reports and records pertaining to the release, detection, and distribution of contaminants on the former Clopay site and its vicinities. The findings are as follows:

- Dischargers have stored, used, and/or released VOCs, including PCE, on the former Clopay site. Elevated levels of PCE among others VOCs and petroleum hydrocarbons have been detected in both soils and groundwater beneath the former Clopay site, especially at the former hazardous waste disposal area (Area 2) abutting the ERC property and the rail road spur.
- ERC's investigations have revealed that VOCs, mainly PCE, are present at its southwest portion of the property abutting the former Clopay hazardous waste disposal area (Area 2). However, no known records indicate that PCE has been stored, used, or released on the ERC facility.
- Investigations conducted by both Clopay and American Racing Equipment have revealed that VOCs are present in soil vapor, soils, and groundwater on the ARE facility. The detected VOCs, predominantly PCE, are located in the area near the

flood control channel off the Area 2. The site assessment results completed so far have not revealed significant VOCs sources on the American Racing Equipment site.

- The compositions of the VOCs detected beneath the former Clopay site, ERC site, rail road spur and flood control channel, and American Racing Equipment site are similar, with PCE being the dominant compound, along with its daughter compounds TCE, DCE, DCA, etc.
- The investigations also found that TCE, PCE and their associated chemical breakdown products, *cis*-1,2-DCE), *trans*-1,2-DCE, are present in the ground water at the Site and its vicinities in concentrations in excess of applicable *Water Quality Control Plan for the Los Angeles Basin* (Basin Plan) water quality objectives.

4. BASIN PLAN VIOLATIONS: The Regional Board adopted an amended Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) on June 13, 1994. The Basin Plan designates beneficial uses and establishes water quality objectives for inland surface waters, groundwaters, coastal waters and wetlands. The discharge of chlorinated solvent waste constituents and petroleum wastes from the former Clopay Site has exceeded the water quality objectives for the beneficial use of groundwaters as Specified in Table 3-7 (page 3-10) of the Basin Plan, therefore, is a violation of water quality objectives for ground waters of the Basin Plan (page 3-18).

Basis for Finding No. 4

5.

Basin Plan adopted in 1994 pursuant to California Water Code (Water Code) section 13240 and the federal Clean Water Act (CWA) section 303(c).

• See also Basis for Finding No.1.

SITE INVESTIGATION. The Dischargers have not completed site investigations needed to delineate the vertical and horizontal extent of waste impact in soil and ground water. The Dischargers must establish the vertical and horizontal extent of chlorinated hydrocarbon waste (PCE, TCE & their degradation products) and any other waste constituents with sufficient detail to identify affected or threatened waters of the state and provide the basis for decisions regarding subsequent cleanup and abatement actions, if any are determined by the Regional Board to be necessary.

Basis for Finding No. 5

State Water Resources Control Board Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304¹⁰ provides in Section II.A.1., that the Regional Board shall require the Discharger(s) to determine the nature and extent of the discharge with sufficient detail to provide the basis for

¹⁰ SWRCB Resolution No. 92-49 is a state policy that establishes policies and procedures for investigation and cleanup and abatement of discharges under CWC Section 13304. The Resolution includes procedures to investigate the nature and horizontal and vertical extent of a discharge and procedures to determine appropriate cleanup and abatement measures.

decisions regarding subsequent cleanup and abatement actions. Installation of ground water monitoring wells typically occur as an iterative process until ground water monitoring data indicates that waste constituent concentrations are at or near background concentrations or not detectable in groundwater. Completion of this iterative process results in an adequate delineation of the plume in the horizontal direction.

The chlorinated solvent plume at the Site, especially vertically, is not adequately defined. Offsite impact of PCE and other VOCs needs to be further delineated.

Vertical delineation of the plume at the Site is also incomplete.

6. CLEANUP AND ABATEMENT ACTIONS. Griffon conducted limited onsite remedial activities at the Site on Area 1 and Area 2. During the two excavation actions conducted in August 1998 and May 2006, Griffon removed contaminated soils from the top 20 feet. However, the soil conditions between 20 feet bgs and the groundwater remain unknown. The soil and groundwater remediation using a SVE/AS system at Area 2 from August 1998 to October 2000, although effective, did not continue and cleanup goals for the protection of water quality and human health have not been achieved. The offsite soil, soil gas, and groundwater, which contain chlorinated solvent wastes, have not been remediated.

Basis for Finding No. 6

- Dames & Moore, December 11, 1997. Remedial Action Plan, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California
- Dames & Moore, April 10, 1998. Remedial Action Plan Addendum Groundwater Contamination, Air Cargo Site, 2930 Maria Street, Rancho Dominguez, California
- TRAK Environmental Group, June 1, 2006. Report of Soil Corrective Action, Area 1 of Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California.
- TRAK Environmental Group, September 18, 2006. Limited Subsurface Investigation, Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California.
- TRAK Environmental Group, February 26, 2007 Groundwater Monitoring Report, Former Clopay Site, 2930 Maria Street, Rancho Dominguez, California.
- Interim Site Assessment & Cleanup Guidbook, May 1996. California Regional Water Quality Control Board, Los Angeles and Ventura Counties, Region 4.
- See also Basis for Finding No.3.
- 7. LEGAL AND REGULATORY AUTHORITY. This Order is based on (1) Section 13304 and Chapter 5, Enforcement and Implementation commencing with Section 13300 of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000); (2) applicable state and federal regulations; (3) applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the Water Quality Control Plan for the Los Angeles Region adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State