CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2004-0043
FOR
CITY OF LODI, GUILD CLEANERS, INC., ESTATE OF DWIGHT ALQUIST,
ODD FELLOWS HALL ASSOCIATION OF LODI, LODI NEWS SENTINEL,
AND BECKMAN CAPITAL CORPORATION (F.K.A. BECKMAN & CO., INC).
LODI CENTRAL PLUME AREA
SAN JOAQUIN COUNTY

This Order is issued to the City of Lodi, Guild Cleaners, Inc., Estate of Dwight Alquist, Odd Fellows Hall Association of Lodi, the Lodi News Sentinel and Beckman Capital Corporation (hereafter collectively referred to as the Discharger) based on provisions of California Water Code Section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region (hereafter Regional Board) to issue a Cleanup and Abatement Order (Order).

The Regional Board finds, with respect to the Discharger's acts or failure to act, the following:

INTRODUCTION

1. The City of Lodi is the owner and operator of the Lodi sanitary sewer system, a portion of which runs beneath the alleyway between Church and Pleasant Street, immediately south of Pine Street, in Lodi, San Joaquin County (hereafter referred to as the "alleyway sewer line"). The alleyway sewer line received waste, a portion of which was released to the underlying soils and groundwater. The waste originated from dry cleaning operations at Guild Cleaners, Inc. (Guild) located at 17 South Church Street**,** R & J Cleaners (R & J) located at 218 West Pine Street, Flair Cleaners (Flair) located at 218 West Pine Street and from printing operations conducted at the Lodi News Sentinel located at 212 West Pine Street. The alleyway sewer line and the aforementioned properties constitute the "Site" and are shown in Attachment A, which is made part of this Order. Groundwater in the vicinity of the alleyway sewer line contains concentrations of tetrachloroethene (also known as perchloroethylene or PCE), a common solvent used in dry cleaning and equipment cleaning, and solvent degradation products in excess of water quality objectives (WQO). Soil in the vicinity of the alleyway sewer line contains concentrations of PCE that threatens to further degrade groundwater quality.

2. The City of Lodi is the owner and operator of Lodi sanitary sewer system, of which the alleyway sewer line is a part. The City of Lodi operates its sanitary sewer system pursuant to an NPDES permit, # CA0079243, issued by the Regional Board. The City of Lodi is subject to this Order because as owner and operator of a waste

disposal conveyance system the City has caused or permitted waste to be discharged to waters of the state where it has created and threatens to create a condition of pollution or nuisance. The City has had actual or constructive (legally presumed) knowledge of discharges from its sewers, and the ability to prevent further sewer discharges, since at least 1992.

3. Guild is the current property owner of 17 S. Church Street where Guild Cleaners operates. Guild has operated an active dry cleaning facility on the property since 1959. PCE was used as a solvent in dry cleaning operations and from 1959 to 1995, Guild discharged process wastewater containing PCE to the sewer, which thereafter was released to the environment. Guild is subject to the Order because it conducted activities that caused waste to be discharged or deposited into waters of the state where it has created and threatens to create a condition of pollution or nuisance.

4. Dwight Alquist, deceased, was the former owner and operator of Flair. PCE was used as a solvent in dry cleaning operations and from 1957 to 1973, Flair discharged process wastewater containing PCE to the sewer, which thereafter was released to the environment. Dwight Alquist was also the former owner and operator of Guild Cleaners. The Estate of Dwight Alquist is subject to the Order because it conducted activities that caused waste to be discharged or deposited into waters of the state where it has created and threatens to create a condition of pollution or nuisance at 17 S. Church and Flair.

5. The Lodi News Sentinel operated a newspaper printing business from1945 to 1968 and during that time used solvents and discharged wastewater containing solvents to the alleyway sewer line, which thereafter was released to the environment. The Lodi New Sentinel is subject to the Order because it conducted activities that caused waste to be discharged or deposited into waters of the state where it has created and threatens to create a condition of pollution or nuisance.

6. Odd Fellows Hall Association of Lodi (Odd Fellows) is the current owner of 218 W. Pine Street, the property where R & J and Flair conducted operations that discharged process wastewater containing PCE to the sewer, which thereafter was released to the environment and Beckman Capital Corporation (Beckman) (formerly known as Beckman & Co., Inc.) is the current owner of 212 W. Pine Street, the property on which the Lodi News Sentinel conducted operations discharged wastewater containing solvents to the alleyway sewer line which thereafter was released to the environment. Odd Fellows and Beckman are subject to this Order because as the past and current owners of the property they caused or permitted waste to be discharged to waters of the state where it has created and threatens to create a condition of pollution or nuisance and because they have knowledge of the discharge and the ability to control it.

BACKGROUND

7. Lodi relies on groundwater for its drinking water. In the late 1980's, PCE and TCE pollution was discovered in several municipal drinking water supply wells in the City of Lodi. In the early 1990's, investigations conducted by the Regional Board under the Well Investigation Program revealed numerous discrete areas where TCE was discharged, or where PCE from dry cleaning operations was discharged to the sewer system. Regional Board staff concluded that PCE had leaked from the sewer to the groundwater.

8. Recent investigations show that wastewater containing solvents disposed by Guild, Lodi News Sentinel, R & J, and Flair to the alleyway sewer line were subsequently discharged to the soil and groundwater due to leaks and sags in the alleyway sewer line itself. The discharges have resulted in soil and groundwater pollution at levels so high that pure liquid phase PCE remains in the soil and groundwater. PCE in the groundwater has been detected as high as 140,000 micrograms/liter (µg/l) and PCE has been detected in soil gas as high as 49,000 µg/l. The groundwater pollution extends downgradient over 3,000 feet and has migrated downward to over 150 feet deep below ground surface. The PCE impacted a municipal supply well that was subsequently abandoned. PCE vapor intrusion to indoor air has been documented in two buildings in the Central Plume Area and the potential exists for vapor intrusion to indoor air in other buildings overlying the groundwater plume. This impacted area is referred to as the "Lodi Central Plume Area".

9. In 1997, DTSC and the City of Lodi entered into a "Cooperative Agreement" whereby Lodi assumed a lead role in the cleanup and agreed to pursue legal action against potentially responsible parties (PRPs) to enforce cleanup and to recover the City's legal costs. Lodi agreed that if it were not successful in compelling PRPs to undertake remedial work within 24 months of the effective date of the Cooperative Agreement, the City would perform investigations and install and operate a "downgradient containment and remediation system." Due to the discovery of liquid phase PCE in the soil and groundwater at the Central Plume Area, remedial work other than, or in addition to, that described in the Cooperative Agreement is necessary. In the Cooperative Agreement DTSC provided the City with a covenant not to sue "with respect to claims arising from the City of Lodi's design, construction, operation or maintenance of any storm or sanitary sewer systems." The Regional Board is not a party to the Cooperative Agreement.

10. In 2000, the City initiated legal action in Federal Court against a number of PRPs. The City also began investigations of the extent of contamination and produced a Phase 1 report in September 2001.

11. In October of 2001, Guild Cleaners requested Regional Board oversight for the performance of a Remedial Investigation and Feasibility Study for its area of contamination. The Regional Board, in consultation with DTSC, undertook the requested oversight and Guild has nearly completed its investigations of the extent of PCE in the soil and groundwater. With Regional Board oversight Guild also constructed a pilot-scale soil vapor extraction (SVE) system and extracted over 4,000 pounds of pure phase PCE in the course of a six-week pilot scale study conducted in 2003. Guild has completed pilot testing the feasibility of shallow groundwater remediation by a combination of sparging and SVE.

12. Regional Board staff also requested that the City of Lodi repair the leaking, sagging sewer line in the area of the pure phase liquid PCE release in the Central Plume pollution source area. Although PCE is not currently being discharged into the sewer in this area, the repair was necessary to prevent sewer leakage from causing further migration of PCE already present in the soil. In response to the Regional Board staff's request, the City recently slipped-lined that section of the sewer.

13. DTSC has issued an Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (Order), Docket No. I&SE 02/03-024, to Guild Cleaners, Inc.; the Estate of Dwight Alquist; the Lodi News Sentinel; Odd Fellows Hall Association of Lodi; Beckman Capitol Corporation; and others. DTSC did not name the City in its order. The Regional Board has reviewed the DTSC Order and believes that this Cleanup and Abatement Order is consistent with the DTSC Order. Although this Regional Board Order may contain additional and different required actions by the Discharger than the actions required by DTSC's Order, nothing herein shall be construed to contradict DTSC's Order. If any action required by this Regional Board Order of a particular Discharger is impossible to perform because of contrary requirements in DTSC's Order, as determined in writing by the Regional Board's Executive Officer, then that action shall be waived as to that Discharger. Such required action shall not be waived for any other Discharger, and all other required actions shall still be required of all Discharger.

AUTHORITY – LEGAL REQUIREMENTS

14. The Fourth Edition of the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (hereafter Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to attain WQOs. The beneficial uses of the groundwater beneath the site are domestic, municipal, industrial, and agricultural supply.

15. The PCE detected at the site is a solvent used in the dry cleaning process and the printing industry. PCE is not naturally occurring. PCE is known to be carcinogenic in experimental animals. Statistically significant increases in the incidence of tumors at

several sites have also been observed in certain studies of workers in the dry-cleaning industry.

16. The PCE detected at the site is a waste as defined in California Water Code Section 13050(d).

17. WQOs listed in the Basin Plan include numeric WQOs, including state drinking water standards, and narrative WQOs, including the narrative toxicity objectives for surface and groundwaters. The numeric standard for PCE to implement the Basin Plan WQO is listed in the following table.

Constituent	Limits	WQO	Reference
PCE	0.06 µg/L	Narrative Toxicity	California Public Health Goal in Drinking Water – Office of Environmental Health Hazard Assessment

µg/L Micrograms per liter

18. The concentrations in groundwater exceed the WQO for PCE. The exceedance of applicable WQOs in the Basin Plan constitutes pollution as defined in California Water Code Section 13050. The Discharger has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance.

19. The State Water Resources Control Board (State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of waste and requires that cleanup standards be consistent with State Board Resolution 68-16 (the antidegradation policy). 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 Section 2550.4, Title 23 California Code of Regulations (CCR). Any cleanup level alternative 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 Board.

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

> "Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirements 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 clean up 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. … Upon failure of any person to comply with the cleanup or 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."

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

"In conducting an investigation specified in subdivision (a), 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, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters 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."

The technical reports required by this Order are necessary to assure compliance with this Order. Existing data and information about the site indicates that waste has been discharged or is discharging from the facilities described above and from the City's sewers, which facilities and sewers are owned or operated, or formerly owned or operated by the Discharger named in this Order.

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

". . . the 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 government 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. . ."

23. Based on the facts stated herein and the evidence referenced in the Staff Report, including the Exhibits attached to the Staff Report, the testimony presented at the hearing, and the technical reports submitted with regard to investigation of the sites subject to this Order, the Regional Board finds that City of Lodi, Guild Cleaners, Inc. Estate of Dwight Alquist, Odd Fellows Hall Association of Lodi, the Lodi News Sentinel, and Beckman Capitol Corporation, have caused or permitted, or are causing or permitting, waste, i.e., PCE, to be discharged or deposited where it is, or probably

will be, discharged into the waters of the state, specifically the groundwater beneath the central area of the City of Lodi, and have created, or threaten to create, a condition of pollution or nuisance, as provided in Water Code Section 13304.

24. If the Discharger, or any of them, fail to comply with this Cleanup and Abatement Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction.

25. If the Discharger, or any of them, violates this Cleanup and Abatement Order, then the Discharger may be liable civilly in a monetary amount provided by the California Water Code.

26. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Section 15321(a)(2), Title 14, CCR.

27. Any person affected by this action of the Regional Board may petition the State Board to review the action in accordance with Sections 2050-2068, Title 23, CCR. The State Board must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request and are available at www.swrcb.ca.gov.

28. The Regional Board held a public hearing on this Order on April 22-23, 2004. The Discharger, or the Discharger's representative(s), and all known interested parties, had the opportunity to submit comments and to be heard. The Board, in a public meeting, heard and considered all comments pertaining to this Order.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Section 13304 and Section 13267 of the California Water Code, the City of Lodi, Guild Cleaners, Inc., Estate of Dwight Alquist, Odd Fellows Hall Association of Lodi, the Lodi News Sentinel and Beckman Capitol Corporation shall:

1. Investigate the discharges of waste, clean up the waste and abate the effects of the discharges of waste, forthwith, from the Site, in conformance with the State Board's Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Regional Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

REMOVAL ACTIONS

2. By **May 26, 2004,** Discharger shall present a work plan to perform pilot testing of SVE, or other equally effective cleanup technology, at and in the vicinity of 218 W. Pine Street and 212 W. Pine Street. Within 90 days following completion of the pilot testing, Discharger shall submit a removal action workplan for soil cleanup and a removal action Workplan for source area groundwater cleanup that includes a schedule for implementing the workplans, which shall, after approval by Regional Board staff, become part of this Order.

INDOOR AIR ASSESSMENT

The Discharger shall complete the following activities by the listed dates:

3. By **May 26, 2004**, submit a work plan for sampling and analysis of indoor air in adjacent businesses and residences. The Discharger shall complete the Indoor Air Assessment in accordance with the work plan and the approved time schedule, which shall become part of this Order.

4. Within **45 days** of performing the Indoor Air Assessment, submit two copies of a report describing the preliminary results of the assessment (*Indoor Air Assessment Report*). The report shall also clearly show whether the indoor air in each building tested contains PCE vapors above the acceptable health risk based level, and if so, present a schedule and proposed work plan for the implementation of corrective measures. The report shall assess the potential for PCE vapors in residential indoor air based on the results of the business indoor air sampling and the results of soil gas analyses. The report shall contain a Workplan for sampling and analysis of residential indoor air if the assessment indicates PCE vapors could be present above health based limits. The approved time schedule shall become part of this Order. Discharger shall implement the Workplan in accordance with the approved schedule.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY

5. The Discharger shall conduct a RI/FS for the Site. This RI/FS shall be prepared consistent with the U.S. Environmental Protection Agency's "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA," October 1988. The purpose of the RI/FS is to assess Site conditions and to evaluate alternatives to the extent necessary to select a remedy appropriate for the Site.

6. RI/FS Workplan. By **May 26, 2004,** Discharger shall prepare and submit to the Regional Board and DTSC for review and approval a workplan and implementation schedule that covers all the additional activities necessary to an RI/FS for the Site. The approved time schedule shall become part of this Order.

7. Remedial Investigation (RI) Report. The RI Report shall be prepared and submitted by Discharger to the Regional Board and DTSC for review and approval in accordance with the approved RI/FS workplan schedule.

8. Baseline Health and Ecological Risk Assessment. Discharger shall perform health and ecological risk assessments for the Site. Discharger shall perform health and ecological risk assessments for the Site that meets the requirements of Health and Safety Code section 25356.1.5, subdivision (b). Discharger shall submit a Baseline Health and Ecological Risk Assessment Report within thirty (30) days from the approval of the RI Report. The report shall be prepared consistent with U.S. EPA and California Environmental Protection Agency guidance and regulations, including as a minimum: Risk Assessment Guidance for Superfund, Volume 1; Human Health Evaluation Manual, December 1989; Superfund Exposure Assessment Manual, April 1988; Risk Assessment Guidance for Superfund, Volume 2, Environmental Evaluation Manual, March 1989; and all other related or relevant policies, practices and guidelines of the California Environmental Protection Agency and policies, practices and guidelines developed by U.S.EPA pursuant to 40 CFR 300.400 et seq.

9. Feasibility Study (FS) Report. The FS Report shall be prepared and submitted by Discharger for review and approval, no later than sixty (60) days from submittal of the RI Report.

10. Public Participation Plan (Community Relations). Discharger shall conduct a baseline community survey and develop a Public Participation Plan (PPP) that describes how, under this Order, the public and adjoining community will be kept informed of activities conducted at the Site and how Discharger will be responding to inquiries from concerned citizens.

11. California Environmental Quality Act (CEQA). Discharger shall provide any information necessary to facilitate compliance with CEQA.

REMEDIAL ACTIONS

12. Remedial Action Plan (RAP). Discharger shall prepare and submit a draft RAP. Discharger shall implement a public review process. Within 10 days after closure of the public comment period, Discharger shall submit a written Responsiveness Summary of all written and oral comments presented and received during the public comment period. Within fifteen (15) days following approval of the Responsiveness Summary, Discharger shall modify the RAP in accordance with the Responsiveness Summary and submit a final RAP.

13. Remedial Design (RD). Discharger shall propose a time schedule, to be approved by the Regional Board, for the preparation and submission a RD describing in detail the technical and operational plans for implementation of the final RAP

14. Implementation of Final RAP. Discharger shall implement the final RAP in accordance with the approved schedule in the RD. Within thirty (30) days of completion of field activities, Discharger shall submit an Implementation Report documenting the implementation of the final RAP and RD.

15. Operation and Maintenance (O&M). Discharger shall comply with all O&M requirements in accordance with the final RAP and approved RD. Within thirty (30) days following a written request, Discharger shall prepare and submit for approval an O&M plan that includes an implementation schedule. Discharger shall implement the plan in accordance with the approved schedule.

16. Five-Year Review. Discharger shall review and reevaluate the remedial action after a period of 5 years from the completion of construction and startup, and every 5 years thereafter as long as the waste remains in place. The review and reevaluation shall be conducted to determine if human health and the environment are being protected by the remedial action. Within thirty (30) calendar days before the end of the 5-year time period, Discharger shall submit a remedial action review workplan for review and approval. Within sixty (60) days of approval of the workplan, Discharger shall implement the workplan and shall submit a comprehensive report of the results of the remedial action review. The report shall describe the results of all sample analyses, tests and other data generated or received by Discharger and evaluate the adequacy of the implemented remedy in protecting public health, safety and the environment. As a result of any review performed under this Section, Discharger may be required to perform additional Work or to modify Work previously performed.

17. Quarterly Summary Reports. Discharger shall submit a Quarterly Summary Report of its activities under the provisions of this Order. The report shall be received by the fifteenth (15th) day of each calendar quarter and shall describe:

    (a) Specific actions taken by or on behalf of Discharger during the previous calendar quarter;

    (b) Actions expected to be undertaken during the current calendar quarter;

    (c) All planned activities for the next calendar quarter;

    (d) Any requirements under this Order that were not completed;

    (e) Any problems or anticipated problems in complying with this Order; and

(f) All results of sample analyses, tests, and other data generated under this Order during the previous calendar month, and any significant findings from these data.

18. By **May 26, 2004**, the Discharger shall submit a *Groundwater Monitoring Program Report* for existing wells and propose any additional wells to be installed for characterizing the VOCs in groundwater for the Regional Board's review. The proposed monitoring program shall include groundwater monitoring and sampling on no less than a quarterly basis. Once a Monitoring and Reporting Program (MRP) is issued by the Executive Officer, the Discharger shall comply with this MRP. The Executive Officer may change this MRP as appropriate.

19. Submittals. Two (2) copies of all submittals and notifications from Discharger required by this Order shall be sent simultaneously to the Regional Board and to DTSC.

GENERAL REQUIREMENTS

20. All investigation work plans, reports and feasibility studies shall contain the information listed in Attachments B, C, and D, respectively, which are made part of this Order. Work shall be conducted only after Regional Board staff concur with, or approve work plans. All reports shall be submitted with a cover letter from the Discharger.

21. Fourteen days prior to conducting any field work, the Discharger shall submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with CCR Title 8, Section 5192.

22. 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 registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger 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.

23. If additional information becomes available that other viable responsible parties exist which have contributed to the pollution in the Lodi Central Plume Area and are not named in this Order, the Regional Board may consider amending this order to include such parties. Such additional information may be submitted by the Discharger if it is available, or may be from other independent sources of information available to Board staff.

24. If the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work

schedule submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Considering the merits of the justification, the request may be granted by the Executive Officer.

25. The Executive Officer shall have the authority to stay any provision of this Order as to any party that is making satisfactory progress (as determined by the Executive Officer) toward Site cleanup.

26. Upon startup of any remediation system(s), Discharger shall operate the remediation system(s) continuously, except for periodic and required maintenance. Any interruption in the operation of the remediation system(s), other than for maintenance or emergencies, without prior approval from the Regional Board is a violation of this Order.

27. Discharger shall optimize remedial systems as needed to improve system efficiency, operating time, and/or pollutant removal rates, and report on the effectiveness of the optimization in the Annual Report.

28. Discharger shall notify Regional Board staff at least three working days prior to any fieldwork, testing, or sampling.

29. Discharger shall obtain all local and state permits necessary to fulfill the requirements of this Order prior to beginning the work that requires a permit.

30. Discharger shall continue any investigation, pilot study, remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished, as required by this Order, and this Order has been rescinded.

31. If, in the opinion of the Executive Officer, the Discharger, or any of them, fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

32. Discharger shall reimburse the Regional Board for reasonable costs associated with oversight of the cleanup of this Site. Failure to do so shall be considered a violation of this Order.

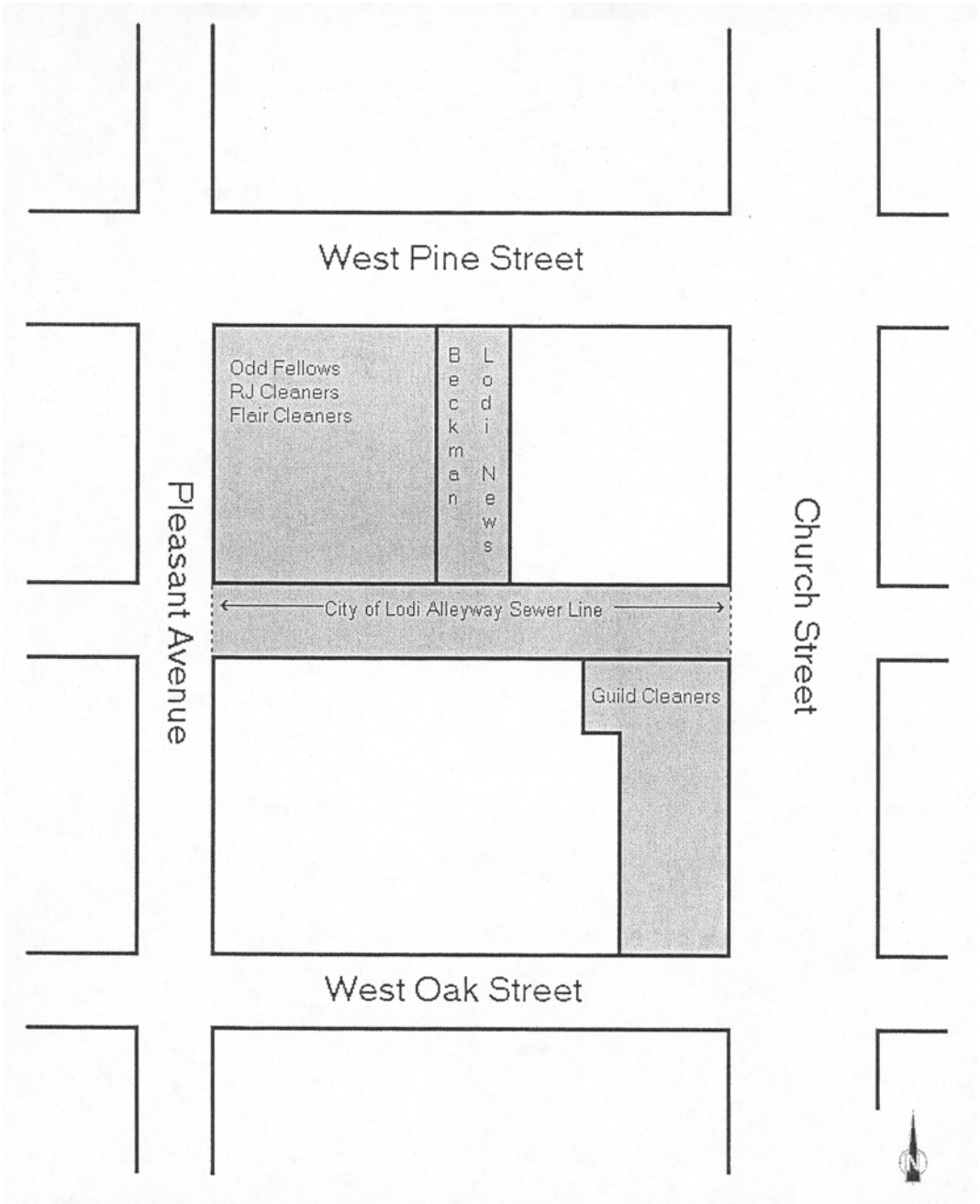
33. Discharger shall conform all actions required by this Order to all applicable federal, state and local laws and regulations, including but not limited to compliance with all applicable requirements of the Department of Toxics Substances Control. Discharger shall provide copies of all submittals and correspondence to DTSC for its review and comment. When DTSC provides written comments on submittals, Discharger shall address those comments in subsequent submittals.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 22 April 2004.

original signed by

_____

THOMAS R. PINKOS, Executive Officer


West Pine Street
Odd Fellows
RJ Cleaners
Flair Cleaners
Beckman
Lodi News
City of Lodi Alleyway Sewer Line
Guild Cleaners
Pleasant Avenue
Church Street
West Oak Street
N

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Terry Tamminen
Secretary for
Environmental
Protection

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Arnold Schwarzenegger
Governor

ATTACHMENT B

ITEMS TO BE INCLUDED IN A SITE INVESTIGATION WORK PLAN

The outline below is a minimum requirement for items to be included and discussed in the text of all site investigation work plans submitted to the Board. All work plans must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. **BACKGROUND**

A. *Site History*

State all operations conducted at the site.
Identify present and historic chemical usage and handling procedures.
List all chemical spills and their disposition.
Identify all past and present above ground and under ground tank locations.
Identify tank capacities and other specifications as necessary.
Identify tank contents, past and present.
Submit all records of tests or repairs on fuel lines and tanks.
Identify locations of maintenance shops, chemicals used in the shops, method of chemical storage and disposal.

B. *Topographic map of site vicinity showing:*

All natural and man-made drainage features including ditches and surface impoundments, and the drainages destination;
Utilities, especially storm drain system;
Location of existing monitoring wells, including those installed by other parties;
Location of above ground and underground storage tanks, other waste-handling facilities, and/or spill site;
Location of a major body of water relative to the site;
Location of any nearby private, municipal, or irrigation wells; and
Other major physical and man-made features.

C. *Geology/Hydrogeology*

Include proposal for logging of boreholes and characterizing site geology, and identifying unconfined or confined aquifers and contaminant flowpaths.

II. **PREVIOUS SITE INVESTIGATIONS**

Provide a detailed description of any previous site investigation conducted to determine if there is any soil or ground water contamination. Include analytical results of all soil and water samples analyzed, and water level and floating product measurements.

III. **FIELD INVESTIGATION**

A. *General*
Monitoring well locations and rationale
Survey details
Equipment decontamination procedures
Health and safety plan

B. *Drilling Details*
Describe drilling and logging methods

C. *Monitoring Well Design*
Casing diameter
Borehole diameter
Depth of surface seal
Well construction materials
Diagram of well construction
Type of well cap
Size of perforations and rationale
Grain size of sand pack and rationale
Thickness and position of bentonite seal and sand pack
Depth of well, length and position of perforated interval

D. *Well Development*
Method of development to be used
Method of determining when development is complete
Method of development water disposal

E. *Soil Sampling*
Cuttings disposal method
Analyses to be run and methods
Sample collection and preservation method
Intervals at which soil samples are to be collected
Number of soil samples to be analyzed and rationale
Location of soil samples and rationale
QA/QC procedures

F. *Well Sampling*
Minimum time after development before sampling (48 hours)
Well purging method and amount of purge water
Sample collection and preservation method
QA/QC procedures

G. *Water Level Measurement*
Elevation reference point at each monitoring well shall be within 0.01 foot. Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

IV. **QA/QC PROCEDURES**

Specify number of field blanks and duplicates.

V. **TIME SCHEDULE FOR PROPOSED WORK**

The work plan shall include a time schedule for implementation of work.

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Terry Tamminen
Secretary for
Environmental
Protection

Sacramento Main Office
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ATTACHMENT C

ITEMS TO BE INCLUDED IN A SITE INVESTIGATION REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all site investigation reports submitted to the Board. Other supporting data to be included in the report, either within the text of the report or in appendices, are italicized at the end of each section. All reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. INTRODUCTION

Summary of past investigations
Purpose of the recent investigation
Scope of the recent investigation
Time period in which the recent investigation was carried out

II. SUMMARY

Number of wells drilled
Results of soil and water analyses
Ground water flow direction and gradient
Possible source determination

III. FIELD INVESTIGATION

Well Construction

- Number and depth of wells drilled
- Date(s) wells drilled
- Description of drilling and construction
- Approximate locations relative to facility site(s)

Supporting Data:
A well construction diagram for each well should be included in the report which shows the following details:

- *Total depth drilled*
- *Depth of open hole (same as total depth drilled if no caving occurs)*
- *Footage of hole collapsed*
- *Length of slotted casing installed*
- *Depth of bottom of casing*
- *Depth to top of sand pack*
- *Thickness of sand pack*
- *Depth to top of bentonite seal*
- *Thickness of bentonite seal*

Thickness of concrete grout
Boring diameter
Casing diameter
Casing material
Size of perforations
Number of bags of sand
Well elevation at top of casing
Depth to ground water
Date of water level measurement
Monitoring well number
Date drilled
Location

Well Development
Date(s) of development of each well
Method of development
Volume of water purged from well
How well development completion was determined
Method of effluent disposal

Supporting Data:
Field notes from well development should be included in report.

Water Sampling
Date(s) of sampling
How well was purged
How many well volumes purged
Levels of temperature, EC, and pH at stabilization
Sample collection, handling, and preservation methods
Sample identification
Analytical methods used

Soil Sampling
Date(s) of sampling
Sample collection, handling, and preservation method
Sample identification
Analytical methods used

IV. FINDINGS OF THE INVESTIGATION

Lithology
Types of sediments encountered
Presence, location, and lateral continuity of any significant sand, silt, or clay layers
Any visual signs of contamination

Supporting Data:
Well logs geologic cross-sections should be included in the report.

Analytical Results of Soil and Ground Water Sampling

Analytical results of each monitoring well should be summarized

Supporting Data:

Laboratory analytical sheets
Chain-of-custody forms

Water Levels

Static water levels measured when well drilled
Date(s) of water level measurements
Water levels determined prior to sampling

Supporting Data:

Dates of water level measurement, depths to ground water, and ground water elevations should be tabulated and included in the report.

Ground Water Gradient and Flow Direction

Ground water gradient and flow direction determined by the investigation should be discussed and compared to the regional gradient and flow direction.

Supporting Data:

A ground water contour map, drawn to scale, should be provided which shows each well, its ground water elevation, and lines of equal ground water elevation. Ground water gradient and flow direction should be shown on the map. The calculation of the gradient should be included.

V. RESULTS OF QA/QC

QA/QC procedures
QC sample identification
Field blank analyses
Comparison of duplicate sample results

VI. CONCLUSIONS AND RECOMMENDATIONS

Note any contamination found
Identify any suspected source of contamination, if possible
Recommend any further investigative needs

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Terry Tamminen
Secretary for
Environmental
Protection

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ATTACHMENT D

ITEMS TO BE INCLUDED IN A
FEASIBILITY STUDY/REMEDIAL OPTIONS EVALUATION REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all feasibility studies/remedial option evaluation reports submitted to the Board. Reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the state of California.

I. Purpose of Feasibility Study/Remedial Options Evaluation

II. Background
- A. Description of Facility
- B. Site History
  1. Years of Operation
  2. Chemical Use
  3. Chemical Releases (Potential and Documented)
- C. Geology
  1. Regional
  2. Local, soil type, lithology, lateral extent of lithologic units
- D. Hydrogeology
  1. Aquifers, Aquitards, Perched Aquifers
  2. Groundwater flow rates, directions, recharge, discharge
  3. Groundwater Use
  4. Extraction and injection wells affect on groundwater flow
- E. Surface Water
  1. Losing or gaining streams, ponds etc.
  2. Hydraulic connection with aquifers
- F. Local Land Use
- G. Previous Investigation and Remedial Actions

II. Nature and Extent of Contamination
- A. Contaminants in Soils
  1. Types and Concentrations
  2. Lateral and Vertical Extent

- B. Pollutants in Groundwater
  1. Types and Concentrations
  2. Lateral and Vertical Extent (including Perched Zones)

III. Contaminant Fate and Transport

A. Contaminant Properties
    1. Mobility
    2. Toxicity
    3. Half-life
    4. Chemical and biological degradation
B. Contaminant Transport based on Soil and Aquifer Properties

IV. Remedial Action Objectives

V. Description of Remedial Action Alternatives – at a minimum, 3 alternatives must be considered

A. Alternative that meets background levels
B. Alternative that meets water quality objectives
C. Alternative that meets levels between background and water quality objectives

VI. Evaluation of Remedial Action Alternatives
A. Overall Protectiveness of Human Health and the Environment
B. Compliance with Laws and Regulations
C. Long Term Effectiveness and Permanence
D. Reduction of Toxicity, Mobility, and Volume
E. Short Term Effectiveness
F. Implementability
G. Cost
F. State and Community Acceptance

VII. Potential Impacts of Remedial Actions

VIII. Estimated Project Schedule for Each Alternative

IX. Preferred Alternative