



Los Angeles Regional Water Quality Control Board

November 8, 2019

Mr. William Barton
Chief Financial Officer
IPS Corporation
455 West Victoria Street
Compton, CA 90220

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO. 7017 1450 0002 1559 1048

GENERAL WASTE DISCHARGE REQUIREMENTS AND MONITORING AND REPORTING PROGRAM FOR THE REDUCTIVE DECHLORINATION OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER USING ZERO VALENT IRON – IPS CORPORATION, 17109 SOUTH MAIN STREET, GARDENA, CALIFORNIA 90248 (ORDER NO. R4-2014-0187, SERIES NO. 144, FILE NO. 18-045, CI No. 10509, GLOBAL ID WDR100040077)

Dear Mr. Barton:

The Los Angeles Regional Water Quality Control Board (Regional Water Board), is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses of water within major portions of Los Angeles and Ventura Counties, including the facility mentioned above.

The 3.6-acre IPS Corporation (IPS) site (Site) consists of eight adjacent parcels on South Main Street and South Broadway Street in Gardena. The primary address is 17109 South Main Street, Gardena, CA 90248. The seven other parcel addresses are 17107 S. Main Street, 17000 S. Broadway Street, 17024 S. Broadway Street, 17102 S. Broadway Street, 17106 S. Broadway Street, 17116 S. Broadway Street, and 17120 S. Broadway Street (Figure 1). The eight parcels are owned by the IPS Corporation (Discharger). The Discharger manufactures adhesive cement, cleaners and primers for piping systems, and other specialty products such as plastics repair adhesives.

IPS, formed in 1984, currently occupies the Site. Industrial Polychemical Services, Inc., a predecessor of IPS, began operations in the 1950s at 17116 S. Broadway Street, and acquired the other parcels by 2005. Prior to Industrial Polychemical Services, the parcels were occupied by various commercial and industrial businesses, including a scuba gear manufacturer, a used auto parts storage yard, a chemical manufacturer, a circuitry manufacturer, and a billiards equipment manufacturer. The land was

IRMA MUÑOZ, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

agricultural from 1928 or earlier until commercial and industrial uses began. IPS stored and used tetrahydrofuran, 2-butanone (methyl ethyl ketone [MEK]), cyclohexanone, acetone, trichloroethene (TCE), methyl methacrylate, and methylene chloride. Volatile organic compounds (VOCs) were first identified in Site groundwater in 1997. In December 2018, VOCs were detected in groundwater samples, including perchloroethene (PCE) to 28 micrograms per liter ($\mu\text{g/L}$), TCE to 810 $\mu\text{g/L}$, cis-1,2-dichloroethene (cis-1,2-DCE) to 28 $\mu\text{g/L}$, 1,1-dichloroethene (1,1-DCE) to 270 $\mu\text{g/L}$, chloropicrin to 900,000 $\mu\text{g/L}$, chloroform to 1,200 $\mu\text{g/L}$, and 1,1,2-trichlorofluoroethane to 94 $\mu\text{g/L}$. Site groundwater flows to the northeast. From 2015 through 2018 the shallow groundwater gradient was approximately 0.002 feet per foot, and the average groundwater depth was approximately 31 feet below grade (bg). The Department of Toxic Substances Control (DTSC) is the lead agency for assessment and remediation.

In May 2018, as part of a Report of Waste Discharge (ROWD) signed May 9, 2018, the Discharger submitted the April 19, 2018, *Final Removal Action Workplan IPS Facility, Gardena, California* (RAW) for reductive dechlorination of VOCs in groundwater. DTSC approved the RAW on April 23, 2018. The RAW, and supplemental updated information provided in October 2019, indicate approximately 10,464 gallons of a colloidal suspension of zero valent iron in glycerol, with iron sulfide (S-Micro ZVI™) will be injected approximately equally (654 gallons) into 16 direct-push injection locations from approximately 45 to 60 feet bg. Injection will take approximately 4 days.

Regional Board staff completed review of the ROWD and supplemental updates and determined that the proposed discharge meets the conditions specified in General WDRs Order No. R4-2014-0187, *General Waste Discharge Requirements for In-Situ Groundwater Remediation and Groundwater Re-Injection*, adopted by this Regional Board on September 11, 2014. Therefore, you are enrolled under General WDRs Order No. R4-2014-0187.

Enclosed are your General Waste Discharge Requirements, consisting of Order No. R4-2014-0187 (Series No. 144), and Monitoring and Reporting Program (MRP) No. CI-10509. The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, to reach concentrations in excess of applicable limits (groundwater quality objectives) for the West Coast Subbasin of the Coastal Plain of Los Angeles, Groundwater Basin, as given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 800 milligrams per liter (mg/L) for total dissolved solids, 250 mg/L for sulfate, 250 mg/L for chloride, and 1.5 mg/L for boron. MRP No. CI-10509 requires you to implement the monitoring program on the effective date of this enrollment (**November 8, 2019**) under Regional Water Board Order No. R4-2014-0187.

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, and portable document format (PDF) electronic copies of monitoring reports to the State Water Resources Control Board

GeoTracker database under Global ID 100040077. Please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

For all parties who upload electronic documents to GeoTracker, it is no longer necessary to email a copy of these documents to losangeles@waterboards.ca.gov or submit hard copies to our office. The Regional Water Board will no longer accept documents (submitted by either hard copy or email) already uploaded to GeoTracker. Please see Electronic Submittal to the Los Angeles Regional Water Board for GeoTracker Users dated December 12, 2011 for further details at:

<http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20GT%20Users.pdf>.

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter, when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year (July 1).

If you have any questions, please contact the Project Manager, Mr. Peter Raftery at (213) 620-6156 (Peter.Raftery@waterboards.ca.gov), or the Chief of the Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 (Eric.Wu@waterboards.ca.gov).

Sincerely,



Renee Purdy
Executive Officer

Attachment: 1) Regional Board WDR Order No. R4-2014-0187
2) Monitoring and Reporting Program CI No. 10509

cc (via email): Derek Reed, Dudek, Inc., Encinitas
Angela Turner, DTSC, Cypress

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

MONITORING AND REPORTING PROGRAM NO. CI-10509
FOR
IPS CORPORATION
17109 SOUTH MAIN STREET, GARDENA, CA 90248

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 133)
FILE NO. 18-045

I. REPORTING REQUIREMENTS

- A. The IPS Corporation (Discharger) shall implement this Monitoring and Reporting Program (MRP) at the IPS Corporation site (Site) at 17109 South Main Street, Los Angeles, California (Figures 1 and 2) on the effective date of this enrollment (**November 8, 2019**) under Regional Board Order No. R4-2014-0187. The first monitoring report under this monitoring program is due January 30, 2020.

Subsequent monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 30
April – June	July 30
July – September	October 30
October – December	January 30

- B. If there is no discharge during any reporting period, the report shall so state.
- C. By March 30th of each year, beginning March 30, 2020, the Discharger shall submit an annual summary report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements.
- D. Laboratory analyses – all chemical, bacteriological, and/or toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) Environmental Laboratory Accreditation Program (ELAP).

- E. The method limits (MLs) employed for analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Executive Officer. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures.
- F. All QA/QC samples must be run on the same dates the samples were analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of the chain of custody documentation shall be submitted with the report.
- G. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the SWRCB-DDW ELAP, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- H. For every item where the requirements are not met, the Discharger shall submit a statement of the cause(s), and actions undertaken or proposed which will bring the discharge into full compliance with waste discharge requirements at the earliest possible time, including a timetable for implementation of those actions.
- I. The Discharger shall maintain all sampling and analytical results, including strip charts, date, exact place, and time of sampling, dates analyses were performed, analyst's name, analytical techniques used, and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- J. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- K. Any mitigation/remedial activity including any pre-discharge treatment conducted at the site must be reported in the quarterly monitoring report.
- L. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective

actions taken or planned that may be needed to bring the discharge into full compliance with Waste Discharge Requirements (WDRs). This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

- M. The Discharger shall comply with requirements contained in Section G of Order No. R4-2014-0187 "*Monitoring and Reporting Requirements*" in addition to the aforementioned requirements.

II. INJECTION MONITORING REQUIREMENTS

A colloidal suspension of zero-valent iron (ZVI) in glycerol, with iron sulfide (S-Micro ZVI™), will be injected into groundwater between approximately 45 and 60 feet below ground surface (bgs) using direct-push methods at the 16 locations shown on Figure 2. The project is designed to remediate volatile organic compounds (VOCs) in groundwater. Injection monitoring shall be conducted daily during injection. Field parameters such as the injection volume, flow rate, and injection period shall be reported.

The quarterly reports shall contain the following:

1. Location map showing at a minimum the injection locations and monitoring wells.
2. Written summary providing:
 - Injection period (date and time)
 - Injection depth (well screen interval or direct push depth)
 - Injected volume (each day)
 - Injected volume (total)
 - Injection flow rates (daily minimum and maximum), and
 - Injection pressures (daily minimum and maximum)
3. During injection, daily visual inspections shall be conducted at the injection locations. The quarterly report shall include a summary of the results of the visual inspections, including representative photographs.

III. GROUNDWATER MONITORING PROGRAM FOR REMEDIATION OF VOCs IN GROUNDWATER USING ZVI

A groundwater monitoring program shall be designed to detect and evaluate impacts associated with the injection of the S-Micro ZVI™. The monitoring program shall assess: (i) performance of the remedial technology by sampling within the treatment zone, and (ii) potential downgradient impacts by sampling downgradient of the treatment areas. Given these monitoring objectives, the following groundwater monitoring wells, shown in Figure 1, shall be included in the monitoring program:

Upgradient of treatment area: MW-9 (screen interval unknown, well 50 feet deep)

Within treatment area: MW-27 (screen 25 - 50 feet) and MW-17 (screen 25 - 50 feet)

Down gradient of treatment area: MW-19 (screen 25 - 50 feet)

The monitoring locations shall not be changed, and any proposed changes shall be provided to and approved by the Regional Board Executive Officer (Executive Officer) prior to implementation.

The following shall constitute the Monitoring and Reporting Program for the groundwater monitoring wells identified above. Table 1 identifies the constituents that shall be analyzed during the baseline sampling event prior to injection and subsequent groundwater monitoring events for the purpose of evaluating ZVI effectiveness.

TABLE 1 – GROUNDWATER MONITORING CONSTITUENTS

<u>CONSTITUENT</u>	<u>UNITS</u> 1	<u>SAMPLE</u> <u>TYPE</u>	<u>MINIMUM FREQUENCY OF</u> <u>ANALYSIS</u>
Water Temperature ²	°C	grab	Baseline prior to injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Specific Conductance ²	µS/cm	grab	Baseline prior to injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Dissolved Oxygen ²	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
pH ²	pH units	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Oxidation-Reduction Potential ²	mV	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Turbidity ²	NTUs	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Nitrate and Nitrite	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Total Organic Carbon	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter

Volatile Organic Compounds	µg/L	passive diffusion bag	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Dissolved Gases (Methane, ethane, ethene)	µg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Metals	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Chloride	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Sulfate	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Boron	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter
Total Dissolved Solids	mg/L	grab	Baseline before injection, weekly for 4 weeks following injection, monthly for the next 2 months, quarterly thereafter

¹ mg/L: milligrams per liter; µg/L: micrograms per liter; µS/cm: microsiemens per centimeter; mV: millivolts;
°C: degree Celsius.

² Field instrument can be used to test for this constituent.

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date, and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

IV. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of in the submitted monitoring data.

V. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____ day of _____ at _____.

_____ (Signature)

_____ (Title)"

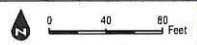
VI. ELECTRONIC SUBMITTAL OF INFORMATION (ESI) TO GEOTRACKER

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, correspondence, and portable document format (pdf) copies of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID **WDR100040077**.

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by: 
Renee Purdy
Executive Officer

Date: November 8, 2019



DUDEK

SOURCE: Seismic Information
 IPS Facility, Gardena, California

FIGURE 1
 Site Layout with Monitoring Wells and USTs

