



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Los Angeles Regional Water Quality Control Board

June 19, 2017

Mr. James L'Esperance  
Northrop Grumman Corporation  
101 Continental Boulevard  
El Segundo, California 90245

Certified Mail  
Return Receipt Requested  
Claim No. 7014 2120 0004 7561 8167

**REVISED MONITORING AND REPORTING PROGRAM NO. CI-10201 – FORMER TRW BENCHMARK FACILITY, 200 SOUTH TURNBULL CANYON ROAD, INDUSTRY, CALIFORNIA (FILE NO. 15-141, ORDER NO. R4-2014-0187, SERIES NO. 053, CI-10201, GLOBAL ID. WDR100026609)**

Dear Mr. L'Esperance:

On April 4, 2016, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) enrolled you under general Waste Discharge Requirements (General WDRs Order No. R4-2014-0187) with a Monitoring and Reporting Program (MRP) No. CI-10201 for pilot tests to inject sodium persulfate, chelated iron, and pH buffer for groundwater remediation of volatile organic compounds and 1,4-dioxane. The January 2017 groundwater monitoring results indicated that trichloroethylene, and 1,4-dioxane were detected at concentrations up to 1,900 micrograms per liter ( $\mu\text{g/L}$ ) and 320  $\mu\text{g/L}$  respectively.

On behalf of Northrop Grumman Corporation, Geosyntec Consultants, Inc. submitted the Request dated January 30, 2017 for using sodium hydroxide as an activator and increasing the quantities of injection amendments. On February 14, 2017, United States Environmental Protection Agency, Region IX concurred with the proposed modification indicated in the Request.

It is estimated that 26,400 gallons of 10% sodium persulfate solution containing 2,345 kilograms of sodium hydroxide (activator) and 770 kilograms of potassium bicarbonate will be injected into 10 injection wells (PT-IW-1 through PT-IW-5 and PT-EW-1 through PT-EW-5) at depths from approximately 65 to 75 feet below ground surface. The injection activities are expected to take approximately one year.

The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, in excess of applicable limits (Eastern Area of the San Gabriel Valley Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 600 milligrams per liter (mg/L) for total dissolved solids, 100 mg/L for sulfate, 100 mg/L for chloride, and 0.5 mg/L for boron.

The revised MRP, which incorporates additional injection material, is enclosed. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the revised MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100026609. 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 State Database GeoTracker, it is no longer necessary to email a copy of these documents to [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov) or submit hard copies to our office. The Regional 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 Board for GeoTracker Users dated December 12, 2011 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 WDR in a separate letter when the project is completed and the WDR 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 beginning July 1.

If you have any questions, please contact the Project Manager, Dr. Ann Chang at (213) 620-6122 ([ann.chang@waterboards.ca.gov](mailto:ann.chang@waterboards.ca.gov)), or the Chief of Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 ([eric.wu@waterboards.ca.gov](mailto:eric.wu@waterboards.ca.gov)).

Sincerely,



Samuel Unger, P.E.  
Executive Officer

Enclosures: Revised Monitoring and Reporting Program No. CI-10201 dated June 19, 2017

cc: Mr. Raymond Chavira, United States Environmental Protection Agency  
Mr. Klaus Rohwer, Equipoise Corporation  
Mr. Evan Cox, Geosyntec Consultants, Inc.

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10201  
FOR  
FORMER TRW BENCHMARK FACILITY  
200 SOUTH TURNBULL CANYON ROAD, INDUSTRY, CALIFORNIA

ENROLLMENT UNDER REGIONAL BOARD  
ORDER NO. R4-2014-0187 (SERIES NO. 053)  
FILE NO. 15-141

I. MONITORING AND REPORTING REQUIREMENTS

- A. Northrop Grumman Corporation (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (June 19, 2017) under Regional Board Order No. R4-2014-0187. The next monitoring report shall be received at the Regional Board by **July 30, 2017**. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring 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 or injection, during any reporting period, the report shall so state. By March 1 of each year, the Discharger shall submit an annual summary report to the Regional 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.
- C. The Discharger shall comply with requirements contained in Section G of Regional Board Order No. R4-2014-0187 "*Monitoring and Reporting Requirements*".

**II. DISCHARGE MONITORING PROGRAM**

The monitoring reports shall contain the following information regarding the injection activities:

1. Location map showing injection points used for sodium persulfate, sodium hydroxide, and potassium bicarbonate.
2. Written and tabular summary defining depth of injection points, quantity and concentration of sodium persulfate, sodium hydroxide, and potassium bicarbonate injected at each injection point, and total amount of sodium persulfate, sodium hydroxide, and potassium bicarbonate injected at the Site.
3. Visual inspection at each injection point shall be conducted and recorded during the injection.

**III. GROUNDWATER MONITORING PROGRAM**

A groundwater monitoring program shall be implemented to evaluate impacts associated with the injection activity. Groundwater samples shall be collected from monitoring wells PT-MW-1 through PT-MW-9 and W30 (Figure 1). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by a monitoring frequency specified in the schedule below from all 10 monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Baseline and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Baseline and quarterly after injection
pH	pH units	grab	Baseline and quarterly after injection
Specific Conductivity	mS/cm	grab	Baseline and quarterly after injection
Temperature	°C	grab	Baseline and quarterly after injection
Turbidity	NTU	grab	Baseline and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total Organic Carbon	mg/L	grab	Baseline and quarterly after injection
Total Dissolved Solids	mg/L	grab	Baseline and quarterly after injection
Sulfate	mg/L	grab	Baseline and quarterly after injection
Chloride	mg/L	grab	Baseline and quarterly after injection
Boron	mg/L	grab	Baseline and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
1,4-Dioxane	µg/L	grab	Baseline and quarterly after injection

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

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. 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 monitoring data submitted.

**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. PUBLIC DOCUMENTS**

All records and reports submitted in compliance with Regional Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-10201 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.

**VII. ELECTRONIC SUBMITTAL OF INFORMATION**

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data in Electronic Deliverable Format, discharge location data, and searchable Portable Document Format of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100026609.

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

Date: June 19, 2017

