



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

March 21, 2018

Mr. Mark Dickerson
Sheppard Hall
NGB/A7OR
3501 Fetchet Avenue
Joint Base Andrews, Maryland 20762

Certified Mail
Return Receipt Required
Claim No. 7017 1450 0002 1559 0591

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10034 – CHANNEL ISLANDS AIR NATIONAL GUARD STATION, 100 MULCAHEY DRIVE, PORT HUENEME, CALIFORNIA (FILE NO. 14-006, ORDER NO. R4-2014-0187, SERIES NO. 045, CI-10034, GLOBAL ID. WDR 100015748)

Dear Mr. Dickerson:

On October 16, 2015, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) enrolled Channel Islands Air National Guard (Discharger) under General Waste Discharge Requirements (WDR Order No. R4-2014-0187) with a Monitoring and Reporting Program (MRP) No. CI-10034 for ozone injection for groundwater remediation of volatile organic compounds and total petroleum hydrocarbons at the subject site. The October 2017 groundwater monitoring results indicated that methyl tertiary butyl ether and tertiary butyl alcohol were detected at concentrations up to 2,000 micrograms per liter ($\mu\text{g/L}$) and 2,100 $\mu\text{g/L}$, respectively.

Based on evaluation of post-remediation groundwater monitoring data, the Discharger submitted the *Draft Final Remedial Action Work Plan Addendum* (Addendum) dated October 2017 to propose an enhanced ozone treatment system (OTS) for the purpose of implementing more effective treatment of groundwater plume. The enhanced OTS includes increasing ozone generation capacity and ozone/oxygen distribution capacities, as well as incorporating and installing additional injection wells. On November 30, 2017, Regional Board staff approved the Addendum.

Ozone will be injected at 24 pounds per day from 190 standard cubic feet per hour of 90% oxygen feed with a stream concentration of up to 5.5 % by weight, into the subsurface between approximately 24 and 40 feet below ground surface through 55 injection points. The ozone injection system are expected to be operated for 24 months.

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 (Oxnard Subbasin of the Santa Clara River Valley Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 1,200 milligrams per liter (mg/L) for total dissolved solids, 600 mg/L for sulfate, 150 mg/L for chloride, and 1.0 mg/L for boron.


The revised MRP, which requires additional monitoring well locations for the application of the enhanced OTS with additional injection points, 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 WDR100015748. 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 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%20OGT%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), or the Chief of Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 (eric.wu@waterboards.ca.gov).

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosure: Revised Monitoring and Reporting Program No. CI-10034 dated March 21, 2018

cc: Mr. Kevin Olness, Amec Foster Wheeler

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10034
FOR
CHANNEL ISLANDS AIR NATIONAL GUARD STATION
100 MULCAHEY DRIVE, PORT HUENEME, CALIFORNIA

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 045)
FILE NO. 14-006

I. MONITORING AND REPORTING REQUIREMENTS

- A. Channel Islands Air National Guard (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (March 21, 2018) under Regional Board Order No. R4-2014-0187. The next monitoring report shall be received at the Regional Board by **April 30, 2018**. 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 ozone.
2. Written and tabular summary defining depth of injection points, ozone injection rate, ozone injection duration, quantity of ozone injected at each injection point, and total amount of ozone 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 MW-1, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, and MW-34 (Figure 1). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by specified schedules from all 19 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
Total Petroleum Hydrocarbons	µg/L	grab	Baseline and quarterly after injection

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. 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-10034 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

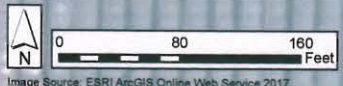
The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data in Electronic Deliverable Format, discharge location data, and searchable Portable Document Format of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100015748.

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

Date: March 21, 2018



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 Image Source: ESRI ArcGIS Online Web Service 2017
 PROJECT NO.: 291330005.004
 DATE: February 2018
 DRAWN BY: KOB
 CHECKED BY: KM



Legend	
	Air National Guard Boundary
	Operable Unit Boundary
	Building or Structure
	Groundwater Treatment System Trailer
	Aboveground Storage Tank (AST)
	Monitoring Well - Shallow
	Monitoring Well - Deep
	New Monitoring Wells
	Staff Gauge
	New Ozone Injection Wells - Shallow
	Ozone Injection Well - Shallow
	Ozone Injection Well - Deep
	Injection Well Radius of Influence (30 feet)
	New Injection Well Radius of Influence (30 feet)