

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

**MONITORING AND REPORTING PROGRAM NO. CI-9067
FOR
PARAPLAST AREA
FORMER NORTHROP GRUMMAN FACILITY
1515 RANCHO CONEJO BOULEVARD, NEWBURY PARK, CALIFORNIA**

**ORDER NO. R4-2005-0030
FILE NO. 01-116**

I. REPORTING REQUIREMENTS

- A. The Discharger shall implement this monitoring program on the effective date of this enrollment (August 8, 2006) under Regional Board Order No. R4-2005-0030. The first monitoring report under this Program is due by October 15, 2006.

Monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

- B. If there is no discharge or injection, during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. 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.
- D. The Discharger shall comply with requirements contained in Section G of Order No. R4-2005-0030 “*Monitoring and Reporting Requirements*” in addition to the aforementioned requirements.

August 8, 2006

II. IN-SITU CHEMICAL OXIDATION (ISCO) INJECTION MONITORING REQUIREMENTS

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

- A. Location maps showing barriers and injection points for the permanganate solution,
- B. Written summary defining:
 - 1. Depth of injection points;
 - 2. Quantity of permanganate solution injected per injection point;
 - 3. Total amount of permanganate solution injected at site; and
 - 4. Verification of permanganate solution injected.

III. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be designed to detect and evaluate impacts associated with the each ISCO injection activity. The following shall constitute the monitoring program for total of seven monitoring wells (Figure 2). The Discharger shall conduct baseline sampling prior to ISCO injection, followed by week 1, week 2, week 4, week 8, week 8, week 12, and week 16 sampling events after the ISCO (potassium permanganate) injection from monitoring wells and injection wells (listed below) for the following groundwater parameters:

WELL NUMBER	WELL STATUS
PA-ISCO-01	Injection well
PA-ISCO-02	Injection well
PA-ISCO-03	Injection well
PA-ISCO-04	Injection well
PPIRZ-06 ⁽¹⁾	Up gradient monitoring well
PPIRZ-04	Monitoring well within the injection area
PA-MW-01 ⁽²⁾	Monitoring well within the injection area
PA-MW-02 ⁽²⁾	Monitoring well within the injection area
MW-7R	Across gradient monitoring well
IRZ-M3	Down gradient monitoring well
MW-20 ⁽³⁾	Down gradient monitoring well

- (1) – Monitor for baseline and first semiannual sampling events.
- (2) – A new groundwater monitoring well shall be installed prior to start of the ISCO program
- (3) – Monitor for baseline sampling events. Continue only if IRZ-M3 shows breakthrough.

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total daily injection waste flow	Liters/day (to indicate solution concentration)	In-Situ	Daily during injection
Groundwater Elevation	Feet, mean sea level (msl) and below ground surface (bgs)	In-Situ	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Total Dissolved Solids	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Sulfate	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Chloride	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Boron	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
pH	pH units	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Temperature	Degrees C	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Dissolved Oxygen	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Turbidity	NTU	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Specific Conductance	mS/cm	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Oxidation-Reduction Potential	Millivolts	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Total Organic Carbon (EPA Method 415.1)	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Chlorinated Volatile Organic Compounds (EPA Method 8260B)	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Dissolved Metals (arsenic, barium, boron, cadmium, chromium, hexavalent chromium, copper, iron, lead, manganese, mercury, selenium, and zinc)	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Major Anions (bromide, nitrate, nitrite, O-phosphate, and sulfide)	mg/l (as Nitrogen)	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Major Cations (barium, calcium, magnesium, manganese, potassium, and sodium)	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Color	color unit	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Permanganate	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
Alkalinity, as CaCO	mg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
1,4-Dioxane	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually
1,2,3-trichloropropane	µg/l	grab	Baseline, Weeks 1, 2, 4, 8, 12, 16, semi-annually, and annually

Northrop Grumman Corporation is required to implement the above monitoring frequency for the first injection using potassium permanganate solution. However, dependent upon the initial results, Northrop Grumman Corporation may switch to the use of sodium permanganate solution. 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; and
- D. Tabular and graphical summaries of all the monitoring data.

IV. 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)"

V. 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. Based on the results of this pilot test, if and when a full scale system is determined to treat the VOCs in the

Former Northrop Grumman Facility
(Paraplast Area)
WDR Order No. R4-2005-0030
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remainder of the Paraplast Area, this Monitoring and Requirement Program No. CI-9067 may be revised by the Executive Officer upon request to meet the monitoring requirements for the full scale treatment system.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: _____
Jonathan S. Bishop
Executive Officer

Date: August 8, 2006