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

MONITORING AND REPORTING PROGRAM NO. CI-8947
FOR
RAYTHEON SYSTEMS COMPANY
(FORMER HUGHES MISSILE SYSTEM COMPANY)
8433 FALLBROOK AVENUE, CANOGA 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 (September 20, 2005) under Regional Board Order No. R4-2005-0030. The first monitoring report under this Program is due by January 15, 2006.

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

Reporting Period	Report Due
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.

II. ENHANCED IN-SITU BIOREMEDIATION SYSTEM (EISB) INJECTION MONITORING REQUIREMENTS

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

A. Location maps showing barriers and injection points for the substrate/groundwater:

B. Written summary defining:

1. Depth of injection points;
2. Quantity of substrate/groundwater injected per injection point and per vertical spacing at point;
3. Total amount of substrate/groundwater injected at site; and verification of substrate/groundwater injected.

III. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be designed to detect and evaluate impacts associated with the EISB injection activities. The following shall constitute the monitoring program for total of 16 Monitoring Wells (Figure 1 and Figure 2). The Discharger shall conduct baseline sampling prior to EISB injection, followed by month 1, month 3, month 6, month 9, month 12, and month 18 sampling events after the EISB injection from all 16 monitoring wells for the following groundwater parameters:

Within Area A:	Within Area B:	Within Area C:	Within Area D:
MW-17* (upgradient), CM-2D (downgradient), CM-4D (downgradient), RW-14, RW-15, MW-35S, MW-35D, and MW-16.	MW-17* (upgradient), MW-23** (downgradient), RW-10 (downgradient), and RW-11.	MW-23** (upgradient) CM-7D (downgradient), and CM-13.	MW-24 (upgradient), MW-40(1) (downgradient), and CM-8D.

* - upgradient well for both Area A and Area B.

** - downgradient well for Area B and upgradient well for Area C.

(1) - a new groundwater monitoring well shall be installed prior to start of the EISB program

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Groundwater Elevation	Feet, below ground surface	In Situ	Baseline, Months 1, 3, 6, 9, 12, and 18
Total Dissolved Solids	mg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Sulfate	mg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Chloride	mg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Boron	mg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
pH	pH units	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Temperature	Degrees C	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Dissolved Oxygen	µg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Specific Conductance	mS/cm	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Oxidation-Reduction Potential	Millivolts	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Chlorinated Volatile Organic Compounds (EPA Method 8260B)	µg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Volatile Fatty Acids (in-house direct aqueous injection-GC/FID)	µg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Dissolved Gasses (Methane, Ethene, Ethane, Carbon Dioxide) (Method RSK175)	µg/l	grab	Baseline, Months 1, 3, 6, 9, 12, and 18
Ferrous Iron (Method SM3500)	mg/l	grab	Baseline, Months 1, and 18
Dissolved Metals (Fe/Mn/Mg)	mg/l	grab	Baseline, Months 1, and 18
Major Anions (nitrate, nitrite, and sulfide)	mg/l (as Nitrogen)	grab	Baseline, Months 1, and 18

Raytheon Systems Company (Raytheon) is currently operating a pump and treat system to treat the contaminated groundwater on-site. Entire groundwater contaminated plume is contained. On March 21, 2005, the Regional Board approved Raytheon's request to operate with two recovery wells (RW-01 and RW-02) to prepare for EISB program, and requiring to continue monitoring all the recovery wells annually and effluent samples from the treatment system quarterly.

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. 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.

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: September 20, 2005