CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6027
for
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
(CA0001309)

I. Reporting Requirements

A. The Boeing Company (Discharger) shall implement this monitoring program on the effective date of this Order. All monitoring reports shall be submitted quarterly and must be received by the Regional Board by the dates in the following schedule. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program is due by August 15, 2009.

Reporting Period	Report Due
January – March	May 15
April – June	August 15
July – September	November 15
October – December	February 15

B. If there is no discharge during any reporting period, the report shall so state. The Discharger shall submit an annual summary report (for both dry and wet weather discharges), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and CD or electronically. Submitted data must be IBM compatible, preferably using EXCEL software. This annual report is to be received by the Regional Board by March 1 of each year following the calendar year of data collection.

C. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

Each quarterly report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement, "The analytical results for this sampling period did/did not trigger reasonable potential." If reasonable potential was triggered, then the following information should be provided:

a. A list of the pollutant(s) that triggered reasonable potential;
b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;
c. The concentration of the pollutant(s);
d. The test method used to analyze the sample; and
e. The data and time of sample collection.

D. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

F. Any mitigation/remedial activity including any pre-discharge treatment conducted at the site must be reported in the quarterly monitoring report.

G. Database Management System – The Regional Board is developing a compliance monitoring database management system that may require the Discharger to submit the monitoring and annual reports electronically when it becomes fully operational.

II. Effluent Monitoring Requirements

A. Sampling station(s) shall be established for the point of discharge and shall be located where representative samples of that effluent can be obtained. Provisions shall be made to enable visual inspection of the discharge. All visual observations shall be included in the monitoring report.

B. This Regional Board shall be notified in writing of any change in the sampling stations once established, or in the methods for determining the quantities of pollutants in the individual waste streams.

C. Pollutants shall be analyzed using the methods described in 40 CFR 136.3, 136.4, and 136.5 (revised March 12, 2007); or where no methods are specified for a given pollutant, methods approved by Regional Board or State Board. Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health and must include quality assurance/quality control (QA/QC) data with their report. For the purpose of monitoring pH, dissolved oxygen, residual chlorine, and temperature, tests may be conducted at the field sampling location provided that all requirements of the approved analytical methods for NPDES use in 40 CFR 136 are met.

The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL) and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than, or equal to, the ML; or,

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with MDL indicated for the analytical method used.

Current MLs (Attachment T-A) are those published by the State Water Resources Control Board (State Board) in the [illegible] (SIP), February 21, 2005.

D. Where possible, the MLs employed for effluent analyses shall be lower than the permit limits established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year (in the annual report), the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory quality assurance/quality control (QA/QC) procedures.

The Regional Board, in consultation with the State Board Quality Assurance Program, shall establish a ML that is not contained in Attachment T-A to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment T-A;

2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR 136 (revised May 14, 1999);

3. When the Discharger agrees to use an ML that is lower than that listed in
0115 0 Td (f)Tj 3.12598 0 Td ( )Tj 3.00575 0 Td (t)Tj 3.00575 0 Td (h)Tj 6.0115 0 Td (e)Tj

substitute for the ML for reporting and compliance determination purposes.

E. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be

then the Discharger may, in lieu of duplicative sampling, submit the data, a report interpreting the data, photographs of the site, and related QA/QC documentation in the corresponding annual report.

2. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well as, related QA/QC procedures. The SOP must also include specific in

consecutive weekly samples have been obtained, and compliance with the monthly average limit has been demonstrated.

III. Effluent Monitoring Program

A. The rainfall in inches is recorded at the time the sample is collected. Daily rainfall measurements in inches per day are recorded and reported.

B. The following shall constitute the effluent monitoring program for the final effluent at Discharge Nos. 001, 002, 011, 018, and 019.

Constituent	**Units**	**Type of Sample**	**Minimum Frequency of Analysis**[1]
Total waste flow	gal/day	----	once per discharge event
Temperature	^{o}F	grab	once per discharge event
pH	pH Units	grab	once per discharge event
Rainfall	Inches	continuous	continuous
Hardness as $CaCO_3$	mg/L	composite	annually
Conductivity at $25^{o}C$	mhos/cm	grab	once per discharge event
Total suspended solids	mg/L	composite	once per discharge event
Settleable solids	ml/L	grab	once per discharge event
$BOD_5(20^{o}C)$	mg/L	composite	once per discharge event
Oil and grease	mg/L	grab	once per discharge event
Turbidity	NTU	composite	once per discharge event
Total residual chlorine	mg/L	grab	annually
Total organic carbon	mg/L	composite	annually
Total dissolved solids	mg/L	composite	once per discharge event
Chloride	mg/L	composite	once per discharge event
Sulfate	mg/L	composite	once per discharge event

[1] During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during ex[illegible]

Constituent	Units

Constituent	Units	Type of Sample	Minimum Frequency of Analysis[1]
Selenium[2]	g/L	composite	once per discharge event
Silver[2]	g/L	composite	annually[6]
Thallium[2]	g/L	composite	annually[6]
Zinc[2]	g/L	composite	once per discharge event
Cobalt	g/L	composite	annually
Vanadium	g/L	composite	annually
Radioactivity- Gross Alpha Gross Beta[4]	 pCi/L pCi/L	 composite composite	 once per discharge event once per discharge event
Combined Radium 226 & Radium 228[5]	pCi/L	composite	once per discharge event
Tritium[4]	pCi/L	composite	once per discharge event
Strontium-90[4]	pCi/L	composite	once per discharge event
H-3 (Radioactive Hydrogen) (Tritium)	pCi/L	composite	once per discharge event
K-40 (Potassium-40)	pCi/L	composite	once per discharge event
CS-137	pCi/L	composite	once per discharge event
Uranium	pCi/L	composite	once per discharge event
PCBs	g/L	composite	annually
TPH[10]	g/L	grab	annually
Monomethylhydrazine	g/L	composite	annually
cis-1,2-Dichloroethene	g/L	grab	annually
1,4-Dioxane	g/L	composite	annually
1,1,2-Trichloro-1,2,2-trifluoroethane	g/L	composite	quarterly
1,2-Dichloro-1,1,2-triflouroethane	g/L	composite	annually
Cyclohexane	g/L	grab	annually

[4] Analyze these radiochemicals by the following USEPA testing methods: method 900.0 for gross alpha and gross beta,04 0 Td (t)Tj 2.524.04976 Td ( )Tj 3.12604 0 T:

Constituent

Constituent	Units	Type of Sample	Minimum Frequency of Analysis[1]
Perchlorate	g/L	composite	once per

Constituent	Units	Type of Sample	Minimum Frequency of Analysis[1]
Total dissolved solids	mg/L	composite	once per discharge event[12]
Total petroleum hydrocarbons[10]	g/L	grab	once per discharge event[12]
Perchlorate	g/L	composite	once per discharge event[12]
N-Nitrosodimethylamine	g/L	composite	once per discharge event[12]
1,4-Dioxane	g/L	composite	once per discharge event[12]
1,2,3-Trichloropropane	g/L	grab	once per discharge event[12]
Ethylene dibromide	g/L	grab	once per discharge event[12]
Methyl tertiary butyl ether (MTBE)	g/L	grab	once per discharge event[12]
Naphthalene	g/L	composite	once per discharge event[12]
Di-isopropyl Ether (DIPE)	g/L	grab	once per discharge event[12]

IV. Toxicity Monitoring Requirements

A. Acute Toxicity Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's [illegible], Fifth Edition. October 2002 (EPA/821-R-012) or a more recent edition to ensure compliance in 100 % effluent.

2. The fathead minnow, [illegible], shall be used as the test species for fresh water discharges and the topsmelt, [illegible], shall be used as the test species for brackish effluent. The method for topsmelt is found in USEPA's [illegible], Fourth Edition, October 2002 (EPA/821-R-02-013).

3. In lieu of conducting the [illegible]

re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive than the re-screening does not need to include more that one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

c. The presence of chronic toxicity shall be estimated as specified using West Coast marine organisms according to EPA' s Short-Term Methods for Estimating Chronic Toxicity of E

efforts and using currently available TIE methodologies. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;

d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

e. Step 5 evaluates in-plant treatment options; and,

f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer toxicity (or six consecutive chronic toxicity results are less than or equal to 1.0 TU_c).

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the EPA acute and chronic manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Part I.C.4.a.2 and Part I.C.4.b.2 of this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.

6. The Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

F. Reporting

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Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Diazinon	µg/L	grab	quarterly[1,2]
Chlordane	µg/L	grab	quarterly[1,2]
4,4-DDD	µg/L	grab	quarterly[1,2]
4,4-DDE	µg/L	grab	quarterly[1,2]
4,4-DDT	µg/L	grab	quarterly[1,2]
Dieldrin	µg/L	grab	quarterly[1,2]
PCBs	µg/L	grab	quarterly[1,2]
Toxaphene	µg/L	grab	quarterly[1,2]
Priority pollutants	µg/L	grab	once every five years[2,3]

[1] Samples collected quarterly. Compliance is determined by comparing the final concentr cn

the required sediment samples along with a host of other stakeholders in the watershed. This facility is located in Arroyo Simi and the Compliance Sampling Site locations stipulated in the TMDL documentation are Arroyo Simi East of Hitch Boulevard (07_HITCH) or Simi Valley Water Quality Control Plant (07D_SIMI). As an alternative the Discharger may choose to collect the sediment samples at the base of the subwatershed where the discharge occurs. The exact location of the sampling point must be stipulated in the initial self-monitoring report.

The in –stream sediment sampling shall be conducted according to methods developed by the USGS and outlined in [illegible] (1994). A brief description of the protocol also appears in the [illegible] dated September 26, 2006, beginning on page 38. Discussions include field measurements and observations, sample handling and custody, sample handling and shipping, and analytical methods.

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Sediment toxicity (chronic 10-day eohaustorius estuarius toxicity)	NA	grab	annually
48-hour Bivalve Embryo toxicity (Mytilus edulis or Crassostrea gigas)	NA	grab	annually
Total ammonia	mg/wet kg	grab	annually
% Moisture	%	grab	annually
Particle Size Distribution	um	grab	annually
Total Organic Carbon	% dry weight	grab	annually
Water velocity	ft/sec	grab	annually
pH	pH Units	grab	annually
Temperature	ºC	grab	annually
Dissolved Oxygen	mg/L	grab	annually
Conductivity	umhos/cm	grab	annually
Chlordane	ng/g	grab	annually
4,4-DDD	ng/g	grab	annually
4,4-DDE	ng/g	grab	annually
4,4-DDT	ng/g	grab	annually
Dieldrin	ng/g	grab	annually
PCBs	ng/g	grab	annually
Toxaphene	ng/g	grab	annually

VIII. Bioassessment Monitoring

[redacted]

- Determine compliance with receiving water limits;
- [redacted]

Attachment T-A

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