

CERTIFIED MAIL

April 25, 2005
In reply refer to 2005RC01193



Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Data and Information Management Unit

Reference: Compliance File CI-6027 and NPDES No. CA0001309

Subject: Supplement to the 4th Quarter 2004 NPDES Discharge Monitoring
Report California Water Code Section 13267 Information Submittal
Santa Susana Field Laboratory

Dear Sir/Madam,

The Boeing Company, Rocketdyne (Rocketdyne) is submitting this Supplement to the 4th Quarter 2004 NPDES Discharge Monitoring Report (DMR) for the Santa Susana Field Laboratory (SSFL). The 4th Quarter 2004 DMR was submitted to the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) on February 5, 2005. This supplement is provided for SSFL Outfalls 003 (Radioactive Materials Handling Facility [RMHF]) and 011 (Perimeter Pond), and includes data and information that was collected as part of the RWQCB-requested California Water Code Section 13267 (Section 13267) surface water sampling.

In the RWQCB's May 20, 2004 letter, pursuant to Section 13267, the RWQCB requested a detailed technical workplan be submitted to conduct the following sampling and analysis:

1. Sampling at Perimeter Pond for both grab and flow-weighted composite samples.
2. Sampling at Perimeter Pond and RMHF for filtered and unfiltered radiochemical samples.

On August 31, 2004, Boeing submitted to the RWQCB the *Submission of Technical Workplan Pursuant to Section 13267 of the California Water Code* (Workplan) that outlined the sampling procedures to be implemented to meet RWQCB requirements.

The Workplan detailed sample collection, sample preparation, analytical testing, and reporting procedures.

After submitting the Workplan and while awaiting Workplan approval, early rains offered Boeing the opportunity to start collecting the surface water samples at Perimeter Pond and RMHF to satisfy the requirements of the 13267 request. Boeing conducted surface water sampling in October and December 2004 at Outfalls 003 and 011 in general accordance with the Workplan.

In the January 12, 2005 RWQCB *Review of Technical Workplan for Santa Susana Field Laboratory* and the Subsequent March 22nd Update,, the RWQCB provided approval of the grab and composite sampling portions of the Workplan, and provided conditional approval of the filtered and unfiltered sampling portion of the Workplan. Based on the RWQCB's written comments, some of the previously collected Section 13267 surface water samples did not meet the RWQCB's criteria.

With the exception of a small set of composite samples collected from Perimeter Pond, surface water samples that were collected and analyzed from Perimeter Pond and RMHF in accordance with the requirements and protocols as stipulated in the RWQCB's Workplan review letters were included in the SSFL 4th Quarter 2004 DMR, submitted February 15, 2005. Surface water samples that were collected and analyzed as part of the Section 13267 program that did not meet the RWQCB's new requirements (for radiological analytical testing) were not included in the 4th Quarter NPDES report, but are being submitted with this letter. The small set of composite samples that were included in the 4th Quarter 2004 DMR were composited based on time-weighted averaging, whereas the protocol called for flow-weighted averaging. Subsequent samples have been composited using flow-weighted averaging, and the results will be reported in future quarterly reports as required by the RWQCB. Therefore, the December 28, 2004, Outfall 011, Section 13267, composite sample results should be viewed for informational purposes only.

It should be noted that the sample results reported herein are provided for information only and are significantly lower than the established permit limits. None of the sample results indicate a permit limit exceedence.

To satisfy the RWQCB's requirements, Boeing is revising the workplan to meet the requirements as stipulated in the January 12, 2005 and March 22nd, 2005 letter. Upon approval, surface water samples will be collected and analyzed to meet the requirements as stipulated in the RWQCB's review.

If there are any questions regarding this letter or attachments, you may contact Mr. Bill McIlvaine of Rocketdyne at (818) 586-9228.



RWQCB (2005RC01193)

April 25, 2005

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Sincerely,

A handwritten signature in black ink, appearing to read "Paul Costa".

Paul Costa, Manager
Environmental Protection

WM:pj

Attachments:

Outfall 003 (13267 Reporting)-Sampling Radiological Results

Outfall 011-Composite (13267 Results)- Sampling Radiological Results

Summary Table Quarterly Notes

cc: State Water Resources Control Board-DMR Processing Center
Jim Pappas, Department of Toxic Substances Control
Barbara Coler, Department of Toxic Substances Control
Robert Marshall, California State University – Northridge Library
Dale Redfield, Simi Valley Library
Lynn Light, Platt Branch, Los Angeles Library

SHEA- 101766

**OUTFALL 003
(13267 REPORTING)**

**FOURTH QUARTER 2004 REPORTING SUMMARY
THE BOEING COMPANY-ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

October 1 through October 31, 2004

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	10/20/2004	
			RESULT	VALIDATION QUALIFIER
RADIOACTIVITY				
Gross Alpha (filtered)	pCi/L	15/-	-0.201 /±0.44	*
Gross Alpha (unfiltered)	pCi/L	15/-	1.85 /±0.90	*
Gross Beta (filtered)	pCi/L	50/-	2.66 /±1.1	*
Gross Beta (unfiltered)	pCi/L	50/-	5.18 /±1.3	*
Strontium-90 (filtered)	pCi/L	8.0/-	0.005 /±0.29	*
Strontium-90 (unfiltered)	pCi/L	8.0/-	-0.073 /±0.22	*
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	ANR	ANR
Tritium (filtered)	pCi/L	20,000/-	-7.8 /±110	*
Tritium (unfiltered)	pCi/L	20,000/-	-25.5 /±110	*

**OUTFALL 003
(13267 REPORTING)**

**FOURTH QUARTER 2004 REPORTING SUMMARY
THE BOEING COMPANY-ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

December 1 through December 31, 2004

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	12/6/2004		12/27/2004	
			RESULT	VALIDATION QUALIFIER	RESULT	VALIDATION QUALIFIER
RADIOACTIVITY						
Gross Alpha (filtered)	pCi/L	15/-	0.026 /±0.49	UJ (R,Q,*1)	0.026 /±0.72	UJ (R,Q,*1)
Gross Alpha (unfiltered)	pCi/L	15/-	0.132 /±0.59	UJ (R,Q,*1)	0.222 /±1.1	UJ (R,Q,*1)
Gross Beta (filtered)	pCi/L	50/-	8.06 /±1.5	J (*1)	6.94 /±1.4	J (*1)
Gross Beta (unfiltered)	pCi/L	50/-	6.78 /±1.5	J (*1)	8.85 /±1.5	J (*1)
Strontium-90 (filtered)	pCi/L	8.0/-	-0.052 /±0.24	U	-0.058 /±0.25	U
Strontium-90 (unfiltered)	pCi/L	8.0/-	-0.121 /±0.20	U	-0.405 /±0.25	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	ANR	ANR	ANR	ANR
Tritium (filtered)	pCi/L	20,000/-	-92.9 /±150	U	-7.96 /±140	U
Tritium (unfiltered)	pCi/L	20,000/-	-74.8 /±150	U	-79.6 /±120	U

**OUTFALL 011 COMPOSITE
(13267 REPORTING)**

**FOURTH QUARTER 2004 REPORTING SUMMARY
THE BOEING COMPANY-ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

December 1 through December 31, 2004

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	12/28/2004	
			RESULT	VALIDATION QUALIFIER
RADIOACTIVITY				
Gross Alpha (filtered)	pCi/L	-/-	ANR	ANR
Gross Alpha (unfiltered)	pCi/L	-/-	0.39 /±0.87	UJ (R,Q,*1)
Gross Beta (filtered)	pCi/L	-/-	ANR	ANR
Gross Beta (unfiltered)	pCi/L	-/-	4.01 /±1.3	J (*1)
Strontium-90 (filtered)	pCi/L	-/-	ANR	ANR
Strontium-90 (unfiltered)	pCi/L	-/-	0.102 /±0.22	U
Total Combined Radium-226 & Radium 228	pCi/L	-/-	ANR	ANR
Tritium (filtered)	pCi/L	-/-	ANR	ANR
Tritium (unfiltered)	pCi/L	-/-	-97.6 /±130	U

**REPORTING SUMMARY NOTES
THE BOEING COMPANY - ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Notes:

1. For Dioxins and Furans, laboratory results may have been reported in picograms/liter (pg/L). However, the permit limit is stated in micrograms/liter (µg/L). To evaluate permit compliance, the laboratory results have been converted to µg/L, as necessary, to calculate the TCDD TEQ.
2. TCDD TEQs for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's TEF. The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 40 of the NPDES permit.
3. For some sample dates, pH was determined with a field instrument and was noted as such. These results were not validated. Since pH does not have an RL, the possible pH range is shown in the RL column.
4. The NPDES permit limits for mercury of 0.10 µg/L (Outfalls 1-2) and 0.13 µg/L (Outfalls 3-7) are not achievable by the laboratory; therefore, the laboratory reporting limit of 0.20 µg/L was used to determine compliance.
5. All of the following abbreviations and/or notes may not occur on every table.

-92.9 +/-200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition
\$	reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator
--	based on validation of the data, a qualifier was not required
-/-	no permit limit established for daily maximum or monthly average
<(some value)	analyte not detected at a concentration greater than or equal to the DL, MDL, or RL (see laboratory report for specific detail)
*	result not validated
*1	improper preservation of sample
*2	the ICP/MS ppb check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J)
*3	initial and or continuing calibration recoveries were outside acceptable control limits
*5	blank spike/blank spike duplicate relative percent difference was outside the control limit

**REPORTING SUMMARY NOTES
THE BOEING COMPANY - ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values
*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed (annual, semi-annual, etc.)
B	laboratory method blank contamination
C	calibration %RSD or %D were noncompliant
C5	Calibration verification %R was outside method control limits
%D	percent difference between the initial and continuing calibration relative response factors
deg F	degrees Fahrenheit
DL	detection limit
DNQ	detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less then the laboratory reporting limit)
E	duplicates show poor agreement
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
LOD	limit of detection
M1	matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	the MS and/or MS duplicate were below the acceptance limits due to sample matrix interference
MDL	method detection limit
MGD	million gallons per day
mg/L	milligrams per liter
ml/L/hr	milliliters per liter per hour
MPN/100ml	most probable number per 100 milliliters
NA	not applicable; no permit limit established for the constituent and/or outfall
ND	analyte value less than the LOD or MDL
NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
pg/L	picograms per liter
Q	matrix spike recovery outside of control limits
R	%R for calibration not within control limits
RL	laboratory reporting limit
RL-1	reporting limit raised due to sample matrix effects
%RSD	percent relative standard deviation
S	surrogate recovery was outside control limits

**REPORTING SUMMARY NOTES
THE BOEING COMPANY - ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

TEQ	toxic equivalent
TU _c	toxic units (chronic)
U	result not detected
µg/L	micrograms per liter
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
^	analysis not completed due to hold time exceedence or insufficient sample volume