

SECTION 11

2010 REASONABLE POTENTIAL ANALYSIS SUMMARY

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**2010 REASONABLE POTENTIAL ANALYSIS SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Definition of Acronyms, Abbreviations, and Terminology Used (Continued)

Fibers/L	Units for asbestos concentration, fibers per liter
HH O	Human Health criteria for consumption of Organisms only
HH W&O	Human Health criteria for consumption of Water and Organisms
MEC	Maximum Observed Effluent Concentration
Min	Minimum
NA	Not Applicable
Narrative	Water quality criteria are expressed as a narrative objective rather than a numeric objective, and therefore are not part of the statistical RPA calculations.
None	No available CTR or Basin Plan criteria.
pH Dependent	CTR Criteria are based on pH.
Once Per Discharge	The 2007 NPDES Permit requires monitoring once per discharge event.
Qualified Data	Data qualifier definitions are: (a) J- The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL), (b) U/UJ- The

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C = Lowest Criteria	The comparison concentration (C) is equal to the lowest criterion for a constituent based on the CMC, CCC, HH O, and Basin Plan Criteria listed.
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Priority Pollutant RPA Column Explanation (Continued)

<i>Step 2 defines the applicable data set.</i>	
Is Effluent Data Available	If there is available monitoring data that is not qualified and above DL, then YES. If not, then NO.
<i>Step 3 determines the maximum observed effluent concentration.</i>	
Was Constituent Detected in Effluent Data	If the constituent was detected, then YES. If all monitoring data are non-detect or qualified then NO.
Are all DL >C	If constituent was detected in effluent data then not applicable (NA). If constituent was not detected and all analysis detection limits are less than the comparison concentration, then YES, if not then NO.
If DL > C MEC = Min (DL)	If the previous cell answer was yes, then the MEC is equal to the minimum detection limit. If not, then NA.
<i>Step 4 compares the MEC to the lowest applicable water quality criteria.</i>	
MEC >= C	If the MEC is greater than or equal to the comparison concentration then YES, if not then NO.
Tier 1 – Need limit?	If the preceding cell was YES, then YES.

Note: Steps 5 and 6 of the Priority Pollutant RPA do not apply to Boeing SSFL because the Regional Board gives no consideration for receiving water background constituent concentrations. Furthermore, Boeing SSFL defers the application of best professional judgment in Step 7 and final determination of reasonable potential in Step 8 to the Regional Board Staff.

Nonpriority Pollutant RPA Column Explanation

Constituent	Provides the Non Priority Pollutant constituent common name
Monitoring	Provides the 2007 NPDES Permit directed monitoring frequency
Units	Provides the data set's concentration units as referenced by 2007 NPDES Permit
Number of Samples	Provides the number of available samples that are not qualified
MEC	Provides the outfall monitoring group's maximum value from the applicable data set
CV	Equal to the standard deviation divided by the average of the applicable data set. If the number of samples is less than 10, the CV is assumed to be 0.6.
Multiplier	Utilizes the EPA's TSD calculation to determine multiplier for which the maximum effluent concentration is calculated. (MWH and Flow Science, 2006, or EPA TSD, 1991)
Projected Maximum Effluent Concentration	Utilizes the product of the multiplier and the MEC as an estimate for the projected maximum effluent concentration.
Dilution Ratio	The Regional Board allocates no dilution ratio to Boeing SSFL.
Background Concentration	The Regional Board allocates no background concentration to Boeing SSFL.
Projected Maximum Receiving Water Concentration	The Regional Board estimates the projected maximum receiving water concentration as equal to the projected maximum effluent concentration.

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS (OUTFALLS 001, 002, 011 AND 018)

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Step 2

Step 4

Outfall	CTR	Constituent	Units	MEC	Freshwater		Human Health		MEC >= C
					CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	

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						Step 1: Water Quality Criteria, Determine C						Step 2	Step 3		Step 4			
						CTR CRITERIA						Basin Plan Title 22 GWR	C = Lowest Criteria	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
						Freshwater			Human Health									
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH									
1_2_11_18	100	Pyrene	ug/L	Available Data <DL	0.6	NONE	NONE	960	11000	NONE	11000	Yes	No	No	NA	No		
1_2_11_18	101	1,2,4-Trichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE	NONE	NONE	Yes	No	No	NA	No		
1_2_11_18	102	Aldrin	ug/L	Available Data <DL	0.6	3	NONE	0.00013	0.00014	NONE	0.00014	Yes	No	Yes	0.00014	No		
1_2_11_18	103	alpha-BHC	ug/L	Available Data <DL	0.0	NONE	NONE	0.0039	0.013	NONE	0.013	Yes	No	No	NA	No		
1_2_11_18	104	beta-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	0.014	0.046	NONE	0.046	Yes	No	No	NA	No		
1_2_11_18	105	Lindane (gamma-BHC)	ug/L	Available Data <DL	0.6	0.95	NONE	0.019	0.063	0.2	0.063	Yes	No	No	NA	No		
1_2_11_18	106	delta-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE	NONE	NONE	Yes	No	No	NA	No		
1_2_11_18	107	Chlordane	ug/L	Available Data <DL	0.6	2.4	0.0043	0.00057	0.00059	NONE	0.00059	Yes	No	Yes	0.00059	No		
1_2_11_18	108	4,4'-DDT	ug/L	Available Data <DL	0.6	1.1	0.001	0.00059	0.00059	NONE	0.00059	Yes	No	Yes	0.00059	No		
1_2_11_18	109	4,4'-DDE	ug/L	Available Data <DL	0.6	NONE	NONE	0.00059	0.00059	NONE	0.00059	Yes	No	Yes	0.00059	No		
1_2_11_18	110	4,4'-DDD	ug/L	Available Data <DL	0.6	NONE	NONE	0.00083	0.00084	NONE	0.00084	Yes	No	Yes	0.00084	No		
1_2_11_18	111	Dieldrin	ug/L	Available Data <DL	0.6	0.24	0.056	0.00014	0.00014	NONE	0.00014	Yes	No	Yes	0.00014	No		
1_2_11_18	112	Endosulfan I	ug/L	Available Data <DL	0.6	0.22	0.056	110	240	NONE	0.056	Yes	No	No	NA	No		
1_2_11_18	113	Endosulfan II	ug/L	Available Data <DL	0.6	0.22	0.056	110	240	NONE	0.056	Yes	No	No	NA	No		
1_2_11_18	114	Endosulfan Sulfate	ug/L	Available Data <DL	0.6	NONE	NONE	110	240	NONE	240	Yes	No	No	NA	No		
1_2_11_18	115	Endrin	ug/L	Available Data <DL	0.6	0.086	0.036	0.76	0.81	NONE	0.036	Yes	No	No	NA	No		
1_2_11_18	116	Endrin Aldehyde	ug/L	Available Data <DL	0.6	NONE	NONE	0.76	0.81	NONE	0.81	Yes	No	No	NA	No		
1_2_11_18	117	Heptachlor	ug/L	Available Data <DL	0.6	0.52	0.0038	0.00021	0.00021	NONE	0.00021	Yes	No	Yes	0.00021	No		
1_2_11_18	118	Heptachlor Epoxide	ug/L	Available Data <DL	0.6	0.52	0.0038	0.0001	0.00011	NONE	0.00011	Yes	No	Yes	0.00011	No		
1_2_11_18	119	Aroclor-1016	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	120	Aroclor-1221	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	121	Aroclor-1232	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	122	Aroclor-1242	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	123	Aroclor-1248	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	124	Aroclor-1254	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	125	Aroclor-1260	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017	NONE	0.00017	Yes	No	Yes	0.00017	No		
1_2_11_18	126	Toxaphene	ug/L	Available Data <DL	0.6	0.73	0.0002	0.0073	0.00075	NONE	0.0002	Yes	No	Yes	0.0002	No		

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REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS (OUTFALLS 003 - 007, 008 AND 010)

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Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR						
3-7,9,10	001	Antimony	ug/L	1.7	0.8	NONE	NONE	14	4300	6	6	Yes	Yes	NA	NA	No
3-7,9,10	002	Arsenic	ug/L	All Data Qualified	0.6	340	150	NONE	NONE	50	50	No	No	No	NA	No

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