

The data yielded statistical RP for the following priority pollutants: copper, lead, mercury, and TCDD. Historical monitoring data, effluent violations, and site history were incorporated during the BPJ analysis, which resulted in establishing effluent limitations at Outfalls 008 through 010 consistent with those at Outfalls 003 through 007.

RP for constituents of concern in addition to the priority pollutants was also evaluated. Statistical RP exists for total suspended solids, perchlorate, boron, sulfate, total dissolved solids, oil and grease, and nitrate + nitrite as nitrogen. No new data was available for fluoride. Effluent limitations for chloride and fluoride are included based on BPJ.

82. Engine Test Stands. Wastewater data collected at the engine test stands Outfalls 012 through 014 from August 20, 2004 through March 30, 2005, was evaluated for reasonable potential. During this time discharges only occurred at Outfall 012. The RPA completed using the SIP methodology revealed reasonable potential of the wastewater for priority pollutants including copper, lead, mercury and TCDD. The analysis for other chemicals of concern was completed as per the TSD. The constituents with statistical RP are oil and grease, settleable solids, suspended solids, 1,4-dioxane, total petroleum hydrocarbons, naphthalene, tertiary butyl alcohol and ethylene dibromide. Effluent limitations for these constituents were therefore included in Order R4-2006-0036. Effluent limitations for total dissolved solids and for perchlorate were retained based on BPJ.
83. Sewage Treatment Plants. The sewage treatment plants, Outfalls 015 through 017, were evaluated and yielded statistical RP for cadmium, chromium III, copper, mercury, nickel, TCDD, MBAS, total suspended solids, perchlorate, BOD, oil and grease, total residual chlorine, total coliform, and nitrite as nitrogen.

#### **R4-2006-0036**

84. Discharges from Outfalls 001, 002, 011 and 018 flow to Bell Creek a tributary of the LA River. The TMDL for metals in the Los Angeles River assigned WLAs to all point source discharges to LA River and all upstream reaches and tributaries (including Bell Creek and tributaries to Bell Creek). Effluent limitations for cadmium, copper, lead, zinc, and selenium at the aforementioned outfalls are based on WLAs established by the TMDL or existing effluent limitations, whichever are more protective. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls.
85. The storm water discharges (Outfalls 003 through 010) did not have reasonable potential for zinc. Outfalls 003 through 007, 009, and 010 flow to Arroyo Simi, a tributary to Calleguas Creek. However, discharges from Outfall 008 flow to the LA River, which has the LA River Metals TMDL that provides a WLA for zinc. That WLA has been incorporated as an effluent limitation at Outfall 008 only. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which were also included for this outfall.
86. Rocket Engine Test Stands (Outfalls 012 through 014). Discharges from Outfalls 012 through 014 exit the site via tributaries to Bell Creek. The metals that have TMDL WLAs

that do not have reasonable potential at these outfalls are cadmium, selenium and zinc. Effluent limitations for these constituents are included based on the TMDL. The Los Angeles River Nutrient TMDL developed WLAs for ammonia-N, nitrate-N, and nitrite-N. Daily maximum effluent limitations for these constituents are also applicable and included for discharges from these locations. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls.

87. Sewage Treatment Plants (Outfalls 015 through 017). Discharges from Outfalls 015 through 017 also exit the site via tributaries to Bell Creek. The Metals TMDL resulted in new WLAs for lead and selenium and a wet weather discharge WLA for cadmium. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls

### **Remand**

88. On December 13, 2006, in Order WQ 2006-0012, the State Board concluded that the compliance locations at Outfalls 001 and 011 were duplicative. It further concluded that compliance locations at Outfalls 002 and 018 were also duplicative. The order required that one set of the compliance points (outfalls with numeric effluent limitations) be deleted.

Figure 2 shows the Outfall locations as specified in Order R4-2004-0111 and its subsequent revisions. Outfall 011 is located at the Perimeter Pond. The Perimeter Pond is the final collection basin near the boundary of the developed property that storm water runoff collects prior to entering the undeveloped portion of the property and subsequently exiting the site after passing through Outfall 001.

Outfall 018, the R2-Pond Spillway, is located near the western edge of Area II. The R2 Pond collects storm water runoff from Areas II and III. Storm water runoff entering the R2 Pond has traversed several RCRA areas of concern, each of which have a host of contaminants of concern currently being investigated. The storm water runoff entering the R-2 Pond exits the pond via the R-2 Pond Spillway and travels southward into the undeveloped portion of the site through Outfall 002 prior to exiting the property.

The developed portion of the site has a number of areas of concern that are included in the RCRA assessment and cleanup proceeding with DTSC oversight. Each of these areas has the potential to contribute contaminants to the storm water runoff traversing it. Since Outfalls 011 and 018 are near the boundary of the developed portion of the site, the Regional Board has decided to retain them as compliance points with numeric effluent limitations. However, runoff from a couple of areas of concern may not be captured in monitoring which occurs at these outfalls. Therefore, the Discharger will be required to continue monitoring at Outfalls 001 and 002.

A "benchmark" is a water quality based effluent limit or a performance based limit that is used to evaluate the performance of BMPs with regard to the removal of contaminants present in the discharge. In this permit, the benchmarks are established based on water quality based effluent limitations. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs

require augmentation, upgrade, or replacement. If so, the Discharger must update the BMP Compliance Plan, secure the required approval from the Executive Officer, and implement the required upgrades. Section II.C.7., that follows includes the requirements for implementing the BMP Plan for compliance with the benchmarks specified in this permit.

The numeric effluent limitations from Outfalls 011 and 018 will be used as benchmarks to evaluate the efficiency of BMPs implemented at Outfalls 001 and 002. This data will also provide information about the concentration of the contaminants entering the closest residential area and entering Bell Creek.

**R4-2007-0055**

89. A reasonable potential analysis was completed for data collected through May 22, 2006. The analysis did not result in the inclusion of any new constituents with effluent limitations in this Order.
90. The Topanga Fire resulted in significant alterations to the site. The exposure of the surface soils with no vegetative cover to runoff has increased the potential for the transport of those surface soils and associated contaminants offsite as a result of the fire. The fire created runoff conditions at SSFL over which the Discharger has limited control. Over 70 percent of the SSFL burned with significant areas denuded of vegetation, making much of the steep terrain highly erodible. Boeing hydromulched upwards of 800 acres and installed erosion control devices throughout much of the SSFL after the fire which occurred on September 28, 2005, and prior to the January 19, 2006 Board Hearing.

After the fire Boeing immediately began efforts to replace the BMPs that were destroyed. Many of the drainage areas were vacuumed to remove accumulated ash. The Discharger hydromulched in excess of 800 acres onsite and installed erosion control devices throughout much of the SSFL site prior to the January 19, 2006 Board Meeting. BMPs implemented prior to the fire were typical of those routinely used at construction sites to retard the transport of sediment (silt fences, plastic sheeting, etc). In most cases, the BMPs implemented after the fire were designed to slow flows (i.e. using underdrain systems) and to treat specific contaminant groups (i.e. metals) using bags filled with carbon or vermiculite. Most recently, the BMPs implemented have been designed to treat the runoff from a storm with the flow of 2.3 inches of rain.

On May 24, 2007, Boeing submitted to the Regional Board the *Phase 2 Post-Fire Vegetation Recovery Assessment Report* prepared for Geosyntech Consultants by Western Botanical Services, Inc. The report assessed the status of and time to recovery of chaparral and scrub at the project site subsequent to the Topanga Fire. The executive summary of the report asserts that chaparral and scrub represent the dominant vegetation types at SSFL and that these plant communities represent an important natural vegetation-based means of erosion control at the site. It further states that the "perennial plant cover differed by significantly more than 30 percent between burned and unburned transects, total vegetative cover differed by significantly greater

than 20 percent cover and ground cover differed by significantly more than 30 percent cover." The executive summary also states that the burned chaparral and scrub vegetation will likely recover to near pre-fire conditions within five to ten years.

The report also includes a section titled *Chaparral Recovery after Fire*. The section includes summaries of other studies completed on chaparral. Several studies (Guo 2001, Grace & Keeley 2006, Keeley & Keeley 1981, Horton & Kraebel 1955, Robi Chaud et al 2000) concluded that the total vegetative cover is generally high in the first two years following a fire: reported values are from 11 to 85 percent. The report estimates that between March 26 and April 12, 2007, the mean total vegetative cover within the burned areas is 46.6 percent.

91. Discharges from Outfalls 012 (Alpha Test Stand) and 013 (Bravo Test Stand) flowed to Silvernale Pond, into R-2 Pond, which discharges at Outfall 018 and ultimately to Outfall 002. Discharges from Outfall 014 (APTF) flowed to R-1 Pond, into Perimeter Pond, which discharges at Outfall 011, and ultimately to Outfall 001. The ROWD submitted on February 21, 2007, stated that all rocket engine testing activities have ceased and will not recur. Order R4-2006-0036 included effluent limitations for discharges from the rocket engine test stands and required monitoring during testing events. Those requirements will not be included in the current Order (R4-2007-0055).

However, years of testing have resulted not only in groundwater contamination but in surface and subsurface soil contamination. These contaminants may be mobilized by storm water traversing these areas. Therefore, this Order includes a requirement to implement BMPs around these areas and to monitor the storm water runoff for contaminants of concern. The previous effluent limitations for discharges from the engine test stands provide benchmarks, to evaluate the effectiveness of the BMPs with controlling the transport of contaminants from the areas.

92. Sewage Treatment Plants (Outfalls 015 through 17). The most recent ROWD states that all discharges from Outfalls 015 through 017 have ceased. The basins at the facilities will continue to be used for the collection of sewage. The collection tanks at the sewage treatment plants have sewage level measuring instruments and alarms. Routine removal and hauling of the sewage takes place before the sewage levels reach the levels that would trigger the alarms. Should the amount of sewage in the holding tanks reach the level which would trigger the alarms, the sewage is transferred to additional tanks onsite and sewage hauling contractors are mobilized to move the sewage for offsite treatment and disposal

This protocol alleviates discharges from this area. Thus requirements for monitoring at these locations will be eliminated.

93. The discharge from SSFL (Outfalls 001 through 018) is primarily storm water runoff which may contain mobilized contaminants from the site. Outfall 019 will discharge treated groundwater from onsite cleanup operations. Discharges from Outfall 019 will enter the drainage way upstream of Outfall 011. The size of the site and the volume of storm water runoff generated presents challenges with treating the entire volume of rainfall. The BMPs for Outfalls 003 through 007 and 010 are designed to treat the storm water runoff

generated from a 2.3 inch storm which represents the 85<sup>th</sup> percentile of the 1-year 24-hour storm event using the Los Angeles County Department of Public Works (LACDPW) estimation models.

94. Over the last two years, the Regional Board has been working with the Southern California Coastal Water Research Project (SCCWRP) and a cross-section of stakeholders in the region known as the Design Storm Project Steering Committee to evaluate potential design storms in terms of capturing storm water runoff, achieving water quality standards, and implementability. A "design storm" is a specific size storm event used to plan for and design storm water controls. A draft report is scheduled for circulation in early September 2007, which will summarize the results of the first two years of the project; discuss the complexities of establishing a regional design storm; and set forth recommendations for additional technical studies, sensitivity analysis and modeling.

Any effort to develop a regional design storm requires that assumptions and generalizations are made. Regional Board staff anticipates that further work will be needed, before proposing a regional design storm policy or any site-specific design storm, in order to further explore these assumptions and generalizations; evaluate the efficacy of the design storm for different pollutants and land uses; refine the data used in modeling the water quality outcomes of potential design storms; and to consider policy with regard to incorporating design storms into permits.

#### **Double Counting of Violations**

95. In several cases; Order R4-2006-0008 and Order R4-2006-0036 included numeric effluent limitations downstream of a compliance point which also had numeric effluent limitations. Concerns were raised by the State Board regarding the potential for double counting violations. Following is a description of how the monitoring was configured which demonstrates that there was little potential for double counting of violations.

Specifically, discharges from Outfall 012 (Alfa Test Stand) had numeric effluent limitations. The discharge from Outfall 012 (rocket engine test firing) was monitored when it occurred. The samples were collected and a determination of compliance was made on that specific event. The discharged wastewater flowed through several RCRA Facility Investigation (RFI) sites included the Bravo Test Stand, Storable Propellant Area (SPA), and Alfa/Bravo Fuel Farm (ABFF) prior to mixing with other wastewater in the Silvernale Pond. At each of the RFI sites there is the potential for the discharged wastewater to pick up additional contaminants in the surface soils or subsurface soils. The Silvernale Pond is also an RFI site with contaminants present in the sediment. The mixed wastewater will sit in Silvernale until the level of wastewater present is enough to cause the pond to overflow. The flow from Silvernale traverses two other RFI sites prior to entering the R-2 Pond. There the flow from Silvernale, which is much different than the flow from Alfa Test Stand (Outfall 012) during a rocket engine test, and any other wastewater in R-2 Pond mixes. Discharges from R-2 Pond (Outfall 018) have effluent limitations. However, historically discharges from the ponds do not occur at the same time that rocket engine tests occur. Discharges from R-2 Pond have routinely occurred only after storm events. Since the discharge from Outfall 012 occurs in some cases months prior to discharges from Outfall 018 and since the discharges from Outfall 012

traverse several RCRA RFI sites where contaminants are present prior to entering the R-2 Pond (Outfall 018), there is little probability that "double counting" occurs at this location.

**R4-2009-0058**

96. The Discharger, as directed by the 2007 CDO (Order R4-2007-0056), assembled a panel of experts (Expert Panel) with experience in treating storm water flows utilizing engineered natural treatment systems (ENTS). The Expert Panel reviewed site conditions, modeled flow, contaminants of concern and evaluated the technologies applicable and the BMPs capable of providing the required treatment to meet the final effluent limitations. The panel initially evaluated site conditions and on April 30, 2008, issued a report entitled "Expert Panel Final Consensus Recommendation on a Site Specific Design Storm for the SSFL." The Expert Panel recommended a site specific design storm defined as either, 2.5 inches during a 24-hour period, or 0.6 inches in an hour, as measured at the Area IV rain gauge located at the SSFL. The design storm criteria have been used by the Discharger to size BMPs at the outfalls and to design the ENTs. The design storm has not been implemented in this Order as a mechanism to determine compliance with numeric effluent limitations.
97. On December 3, 2008, Tracy Egoscue, Executive Officer of the Regional Board, issued a California Water Code Section 13304 Order to perform interim/source removal action of soil in the areas of Outfalls 008 and 009 Drainage Areas to the Discharger. The Order directed the Discharger to cleanup and abate the waste that are discharging to waters of the State, minimize impacts to the streambed and adjacent habitat during the cleanup, protect the water quality during and after the cleanup, and restore the streambed and surrounding habitat following the cleanup.
98. On December 11, 2008, the Discharger submitted a new ROWD. Supplemental information was submitted on February 2, 2009, to complete the ROWD. This Order includes updates required as a result of the new ROWD, the California Water Code Section 13304 Order, and the new RPA conducted on data collected from August 2004 through December 2008.
99. The new RPA did not yield new constituents with reasonable potential at any of the current compliance locations.

**Background and Rationale for Requirements.**

100. The Regional Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. The Fact Sheet, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. The Monitoring and Reporting Program (Attachment T) and all other attachments are also incorporated into this Order.

**CEQA and Notifications**

101. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
102. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
103. This Order shall serve as a NPDES permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect in accordance with federal law, provided the Regional Administrator, USEPA, has no objections.
104. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition to the State Board. A petition must be sent to the State Water Resources Control Board, Office of Chief Counsel, Attn: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22<sup>nd</sup> Floor, Sacramento, CA 95814, within 30 days of adoption of this Order.
105. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, Section 13389.

**IT IS HEREBY ORDERED** that The Boeing Company (Santa Susana Field Laboratory), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**I. Discharge Requirements**

**A. Discharge Prohibition**

1. Wastes discharged shall be limited to treated groundwater, fire suppression water, and storm water runoff, as proposed.
2. Discharges of water, materials, radiologic wastes, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to the Arroyo Simi and tributaries to Calleguas Creek, to Dayton Canyon Creek, Bell Creek, and tributaries to the Los Angeles River, or waters of the United States, are prohibited.

**B. Effluent Limitations**

1. The pH of wastes discharged shall at all times be within the range 6.5 to 8.5.

2. The temperature of wastes discharged shall not exceed 86°F.
3. The discharge of an effluent from Outfall 018 with constituents in excess of the daily maximum limitations listed below is prohibited for storm water runoff. The discharge of an effluent from Outfall 011 and 019 when discharging together must demonstrate compliance with both the daily maximum and monthly average effluent limitations listed below. Storm water only discharges from Outfall 011 must demonstrate compliance with the daily maximum effluent limitations only.

<u>Constituents</u>	<u>Units</u>	<u>Discharge</u>	<u>Limitations</u>
		<u>Monthly Average</u>	<u>Daily Maximum</u>
Total suspended solids <sup>1</sup>	mg/L	15	45
	lbs/day <sup>2</sup>	20,016	60,048
BOD <sub>5</sub> 20°C	mg/L	20	30
	lbs/day <sup>2</sup>	26,700	40,032
Oil and grease	mg/L	10	15
	lbs/day <sup>2</sup>	13,344	20,016
Settleable solids <sup>1</sup>	ml/L	0.1	0.3
Total residual chlorine	mg/L	----	0.1
	lbs/day <sup>2</sup>	----	133
Total dissolved solids	mg/L	----	950
	lbs/day <sup>2</sup>	----	1,270,000
Chloride	mg/L	----	150
	lbs/day <sup>2</sup>	----	200,160
Sulfate	mg/L	----	300
	lbs/day <sup>2</sup>	----	400,320
Barium <sup>3</sup>	mg/L	----	1.0
	lbs/day <sup>2</sup>	----	1,330
Fluoride <sup>3</sup>	mg/L	----	1.6
	lbs/day <sup>1</sup>	----	2135

<sup>1</sup> The effluent limitations for total suspended solids and settleable solids are not applicable for discharges during wet weather. 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 extended periods of rainfall and a storm must be preceded by at least 72 hours of dry weather.

<sup>2</sup> The mass is calculated using the maximum permitted flow of 160 mgd for Outfalls 001 and 002. The flow used to calculate the mass for Outfalls 003 through 010 is 17.8 mgd. The flow used for Outfalls 012 through 014 was 0.004 MGD and the flow used for Outfalls 015 through 017 is 0.06 MGD. If the recorded flow is different the mass should be recalculated using the equation: Mass (lbs/day) = Flow (mgd) \* 8.34 \* concentration (mg/L).

© Thirty day average at pH = 7.9 and 20°C, when hourly samples are collected and composited or only one grab sample is collected. Analysis for the temperature and pH of the receiving water at the same time as the discharge would provide data for a site specific determination of the ammonia limit using Attachment H to the WDR. Shall there be no receiving water present, the pH and temperature of the effluent at the monitoring location shall be determined and reported.

© One hour average WLA at 7.9 pH and 20°C, applies if hourly samples are taken throughout the storm and each is analyzed. No single sample may exceed the 10.1 mg/L limit. Analysis for the temperature and pH of the receiving water at the same time as the discharge would provide data for a site specific determination of the ammonia limit using Attachment H to the WDR. Shall there be no receiving water present, the pH and temperature of the effluent at the end of pipe shall be determined and reported.



Constituents	Units	Discharge	
		Monthly Average	Limitations Daily Maximum
Iron <sup>3</sup>	mg/L	----	0.3
	lbs/day <sup>2</sup>	----	400
Detergents (as MBAS)	mg/L	----	0.5
	lbs/day <sup>2</sup>	----	667
Nitrate + Nitrite-N	mg/L	----	8.0
	lbs/day <sup>2</sup>	----	10,700
Ammonia-N	mg/L	1.96 <sup>ⓐ</sup>	10.1 <sup>ⓐ</sup>
	lbs/day <sup>2</sup>	2,615	13,500
Nitrate-N	mg/L	----	8.0
	lbs/day <sup>2</sup>	----	10,700
Nitrite-N	mg/L	----	1.0
	lbs/day <sup>2</sup>	----	1,334
Manganese <sup>3</sup>	µg/L	----	50
	lbs/day <sup>2</sup>	----	66.7
Cyanide <sup>3</sup>	µg/L	4.3	8.5
	lbs/day <sup>2</sup>	5.7	11.3
Antimony <sup>3</sup>	µg/L	----	6.0
	lbs/day <sup>2</sup>	----	8.01
Arsenic <sup>3,4</sup>	µg/L	----	10
	lbs/day <sup>2</sup>	----	66.7
Beryllium <sup>3</sup>	µg/L	----	4.0
	lbs/day <sup>2</sup>	----	5.34
Cadmium <sup>3,4</sup>	µg/L	2.0	4.0/3.1 <sup>*ⓑ</sup>
	lbs/day <sup>2</sup>	2.7	5.34/4.14 <sup>*ⓑ</sup>
Chromium (VI) <sup>5</sup>	µg/L	8.1	16.3
	lbs/day <sup>2</sup>	10.8	21.8
Copper <sup>3,4</sup>	µg/L	7.1	14.0
	lbs/day <sup>2</sup>	9.5	18.7
Lead <sup>3,4</sup>	µg/L	2.6	5.2
	lbs/day <sup>2</sup>	3.5	6.94
Mercury <sup>3</sup>	µg/L	0.05	0.10
	lbs/day <sup>2</sup>	0.07	0.13

<sup>3</sup> These discharge limitations are expressed as total recoverable.

<sup>4</sup> Concentrations correspond to a total hardness of 100 mg/L. For other conditions where total hardness exceeds 100 mg/L, the limitations can be calculated by following the instructions outlined in 40 CFR Part 131.

<sup>5</sup> The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in replicate sample and the result reported is within the hexavalent chromium limitations.

\* Effluent limit applies only during wet weather discharges. Wet Weather conditions occur between October and March.

<sup>ⓑ</sup> This effluent limit shall be deemed vacated at such time as Regional Board Resolutions R05-006 and R05-007 are vacated in compliance with a writ of mandate in the matter of Cities of Bellflower et al v. State Water Resources Control Board et al, Los Angeles Superior Court # BS101732. The Regional Board shall provide notice to the discharger of any such action.

Constituents	Units	Discharge		Limitations	
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum
Nickel <sup>3,4</sup>	μg/L	35	96		
	lbs/day <sup>2</sup>	47	128		
Selenium <sup>3</sup>	μg/L	4.1	8.2/5 <sup>#B</sup>		
	lbs/day <sup>2</sup>	5.5	10.9/6.67 <sup>#B</sup>		
Silver <sup>3,4</sup>	μg/L	2.0	4.1		
	lbs/day <sup>2</sup>	2.7	5.5		
Thallium <sup>3</sup>	μg/L	----	2.0		
	lbs/day <sup>2</sup>	----	2.7		
Zinc <sup>3,4</sup>	μg/L	54	119		
	lbs/day <sup>2</sup>	72	159		
1,1-Dichloroethylene	μg/L	3.2	6.0		
	lbs/day <sup>2</sup>	4.3	8.0		
Trichloroethylene	μg/L	----	5.0		
	lbs/day <sup>2</sup>	----	6.7		
Perchlorate	μg/L	----	6.0		
	lbs/day <sup>2</sup>	----	8.0		
TCDD	μg/L	1.4E-08	2.8E-08		
	lbs/day	1.9E-08	3.7E-08		
2,4,6-Trichlorophenol	μg/L	6.5	13.0		
	lbs/day	8.7	17		
2,4-Dinitrotoluene	μg/L	9.1	18.3		
	lbs/day	12	24		
Alpha BHC	μg/L	0.01	0.03		
	lbs/day	0.013	0.04		
Bis(2-ethylhexyl)phthalate	μg/L	----	4.0		
	lbs/day	----	5.3		
N-Nitrosodimethylamine	μg/L	8.1	16.3		
	lbs/day	10.8	21.8		
Pentachlorophenol	μg/L	8.2	16.5		
	lbs/day	10.9	22		
Radioactivity Gross Alpha	pCi/L	----	15		
	pCi/L	----	50		
Combined Radium-226 & Radium-228	pCi/L	----	5.0		
	pCi/L	----	20,000		
Tritium	pCi/L	----	8.0		
Strontium-90	pCi/L	----			

The limitations included in the table above are also benchmarks at Outfalls 001 and 002. The daily maximum and monthly average effluent limitations are benchmarks for Outfall 001 and the daily maximum effluent limitations are benchmarks for Outfall 002.

<sup>#</sup> Effluent limit applies only during dry weather discharges. Dry weather conditions occur from April through September.

4. The discharge of storm water runoff only from Discharge Nos. 003 through 010 with constituents in excess of the following limitations is prohibited:

Constituents	Units	Discharge	
		Monthly Average	Limitations Daily Maximum
Oil and grease	mg/L	----	15
	lbs/day <sup>2</sup>	----	2,227
Total dissolved solids	mg/L	----	850
	lbs/day <sup>2</sup>	----	126,184
Total dissolved solids	mg/L	----	950 <sup>6</sup>
	lbs/day <sup>2</sup>	----	141,029
Chloride	mg/L	----	150
	lbs/day <sup>2</sup>	----	22,268
Boron <sup>3</sup>	mg/L	----	1.0
	lbs/day <sup>2</sup>	----	148
Sulfate	mg/L	----	250 <sup>7</sup>
	lbs/day <sup>2</sup>	----	37,113
Sulfate	mg/L	----	300 <sup>6</sup>
	lbs/day <sup>2</sup>	----	44,536
Fluoride	mg/L	----	1.6
	lbs/day <sup>2</sup>	----	238
Nitrate + Nitrite-N	mg/L	----	10 <sup>7</sup>
	lbs/day <sup>2</sup>	----	1,485
Nitrate + Nitrite-N	mg/L	----	8.0 <sup>6</sup>
	lbs/day <sup>2</sup>	----	1,188
Ammonia-N (Outfall 008 only)	mg/L	----	10.1 <sup>8</sup>
	lbs/day	----	1,500
Nitrate-N (Outfall 008 only)	mg/L	--	8.0
	lbs/day	--	1,190
Nitrite-N (Outfall 008 only)	mg/L	--	1.0
	lbs/day	--	148
Selenium (Outfall 008 only)	µg/L	----	5 <sup>#β</sup>
	lbs/day	----	0.7 <sup>#β</sup>
Zinc (Outfall 008 only)	µg/L	----	159 <sup>*β</sup>
	lbs/day	----	23.6 <sup>*β</sup>
Perchlorate	µg/L	----	6.0
	lbs/day <sup>2</sup>	----	0.89
Antimony <sup>3</sup>	µg/L	----	6.0
	lbs/day <sup>2</sup>	----	0.89
Cadmium <sup>3,4</sup>	µg/L	----	4.0/(3.1 <sup>*β</sup> (Outfall 008 only) )
	lbs/day <sup>2</sup>	----	0.59/(0.46 <sup>*β</sup> (Outfall 008 only) )
Copper <sup>3,4</sup>	µg/L	----	14.0
	lbs/day <sup>2</sup>	----	2.08
Mercury <sup>3</sup>	µg/L	----	0.13
	lbs/day <sup>2</sup>	----	0.02

<u>Constituents</u>	<u>Units</u>	<u>Discharge</u>	
		<u>Monthly Average</u>	<u>Limitations</u> <u>Daily Maximum</u>
Nickel <sup>3</sup>	µg/L	----	100 <sup>ⓐ</sup>
	lbs/day <sup>2</sup>	----	14.9
Thallium <sup>3</sup>	µg/L	----	2.0
	lbs/day <sup>2</sup>	----	0.3
Lead <sup>3</sup>	µg/L	----	5.2
	lbs/day <sup>2</sup>	----	0.77
TCDD	µg/L	----	2.8E-08
	lbs/day <sup>2</sup>	----	4.2E-09
Chronic toxicity	TU <sub>c</sub>	----	1 <sup>ⓐ</sup>
Radioactivity			
Gross Alpha	pCi/L	----	15
Gross Beta	pCi/L	----	50
Combined Radium-226 & Radium-228	pCi/L	----	5
Tritium	pCi/L	----	20,000
Strontium-90	pCi/L	----	8

The effluent limitations in the table above serve as benchmarks, as defined in finding 88, paragraph five, for the storm water runoff from Outfalls 008 and 009, from November 1, 2007, through May 17, 2010.

5. Benchmarks for storm water at the former locations of Outfalls 012, 013, and 014 are:

<u>Constituents</u>	<u>Units</u>	<u>Discharge</u>	
		<u>Monthly Average</u>	<u>Limitations</u> <u>Daily Maximum</u>
Oil and grease	mg/L	----	15
	lbs/day <sup>2</sup>	----	0.5
Total dissolved solids	mg/L	----	950
	lbs/day <sup>2</sup>	----	31.7
Total suspended solids	mg/L	----	45
	lbs/day <sup>2</sup>	----	1.5
Settleable solids	ml/L	----	0.3
Chloride	mg/L	----	150
	lbs/day <sup>2</sup>	----	5.0
Boron <sup>3,7</sup>	mg/L	----	1.0
	lbs/day <sup>2</sup>	----	0.03
Sulfate	mg/L	----	300
	lbs/day <sup>2</sup>	----	10
Fluoride	mg/L	----	1.6
	lbs/day <sup>2</sup>	----	0.05

<sup>ⓐ</sup> The chronic toxicity limit is effective at Outfalls 003 through 007, 009, and 010. The limit is included in the Calleguas Creek Toxicity TMDL.

<b>Constituents</b>	<b>Units</b>	<b>Discharge</b>	
		<b>Monthly Average</b>	<b>Limitations Daily Maximum</b>
Nitrate + Nitrite-N	mg/L	----	8.0
	lbs/day <sup>2</sup>	----	0.3
Ammonia-N	mg/L	----	10.1 <sup>Ⓐ</sup>
	lbs/day	----	0.34
Nitrate-N	mg/L	----	8.0
	lbs/day	----	0.27
Nitrite-N	mg/L	----	1.0
	lbs/day	----	0.03
Cadmium	μg/L	----	3.1 <sup>*β</sup>
	lbs/day	----	0.0001 <sup>*β</sup>
Selenium	μg/L	----	5 <sup>#β</sup>
	lbs/day	----	0.0002 <sup>#β</sup>
Zinc	μg/L	----	159 <sup>*β</sup>
	lbs/day	----	0.005 <sup>*β</sup>
Copper <sup>3,4</sup>	μg/L	----	13.5
	lbs/day <sup>2</sup>	----	0.0004
Lead <sup>3</sup>	μg/L	----	5.2
	lbs/day <sup>2</sup>	----	0.0002
Mercury <sup>3</sup>	μg/L	----	0.10
	lbs/day <sup>2</sup>	----	0.000003
TCDD	μg/L	----	2.8E-08
	lbs/day <sup>2</sup>	----	9.3E-12
Naphthalene	μg/L	----	21
	lbs/day <sup>2</sup>	----	0.0007
Total petroleum hydrocarbons	μg/L	----	100
	lbs/day <sup>2</sup>	----	0.003
Ethylene dibromide	μg/L	----	50
	lbs/day <sup>2</sup>	----	0.002
Tertiary butyl alcohol	μg/L	----	12
	lbs/day <sup>2</sup>	----	0.0004
1,4-Dioxane	μg/L	----	3
	lbs/day <sup>2</sup>	----	0.0001
Perchlorate	μg/L	----	6.0
	lbs/day <sup>2</sup>	----	0.0002

6. With the exception of Outfalls 001 and 002, in the event that an effluent limitation set forth above for a pollutant other than a radioactive material is exceeded and the Discharger presents within 30 days of the date of discovery documentation that (i) discharges from a solid waste management unit (unit) regulated by DTSC are causing or contributing to the violation, and (ii) the Discharger was in compliance with all applicable

<sup>6</sup> The limit applies to discharges from Outfall 008 only.

<sup>7</sup> The limit is applicable for discharges from Outfalls 003 through 007, 009 and 010 which flows to Calleguas Creek. It is not applicable at Outfall 008 which discharges to Bell Creek and subsequently the Los Angeles River.

requirements of DTSC permits and corrective action requirements for the unit, and (iii) modifications to DTSC's permit or corrective action requirements are necessary to consistently comply with this Order, then the Discharger, DTSC, and Regional Board will work cooperatively to develop a schedule that is as short as possible to take appropriate actions under the RCRA corrective action requirements or permits, as appropriate, to ensure compliance with this Order. This Order may be reopened and modified, in accordance with applicable laws and regulations, or a Time Schedule Order issued to incorporate appropriate interim limitations while the appropriate actions are being taken under the RCRA corrective action requirements or permits.

**C. Receiving Water Limitations**

1. The discharge shall not cause the concentration of constituents in Arroyo Simi in the vicinity of the discharges, from Outfalls 003 through 007, 009, and 010, to exceed the following limitations:

<u>Constituents</u>	<u>Units</u>	<u>Discharge Monthly Average</u>	<u>Limitations Daily Maximum</u>
Chlorpyrifos	µg/L	---	0.02
Diazinon	µg/L	---	0.16
Chlordane	µg/L	---	0.001
4,4-DDD	µg/L	---	0.0014
4,4-DDE	µg/L	---	0.001
4,4-DDT	µg/L	---	0.001
Dieldrin	µg/L	---	0.0002
PCBs	µg/L	---	0.0003
Toxaphene	µg/L	---	0.0003

The discharge shall not cause any of the following conditions to exist in the receiving waters at any time:

- a. Floating, suspended or deposited macroscopic particulate matter or foam;
- b. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
- c. Visible, floating, suspended or deposited oil or other products of petroleum origin;
- d. Bottom deposits or aquatic growth; or,
- e. Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for

human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. No discharge shall cause a surface water temperature rise greater than 5°F above the natural temperature of the receiving waters at any time or place.
3. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within one foot of the water surface:
  - a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;
  - b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;
  - c. Dissolved sulfide shall not be greater than 0.1 mg/L;
4. Toxicity limitations for discharges from Outfalls 001 through 014, 018, and Outfall 019:
  - a. Acute Toxicity Limitation and Requirements
    1. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70 % survival.
    2. If either of the above requirements (Section I.C.4.a.1) is not met, the Discharger shall conduct six additional tests over a six-week period. The discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.
    3. If the initial test and any of the additional six acute toxicity bioassay test result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.

4. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 6027.
- b. Chronic Toxicity Limitation and Requirements:
  1. This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0 TU<sub>c</sub> in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU<sub>c</sub> in a critical life stage test.)
  2. If the chronic toxicity of the effluent exceeds 1.0 TU<sub>c</sub>, the Discharger shall immediately implement an accelerated chronic toxicity testing according to MRP No. 6027, Section IV.D. If the results of two of the six accelerated tests exceed 1.0 TU<sub>c</sub>, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan. (see MRP No. 6027, Section IV.E.).
  3. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 6027.
  4. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

5. Preparation of an Initial Investigation TRE Workplan
  - i. The Discharger shall submit a detailed initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance or current versions. At a minimum, the TRE workplan must contain the provisions in Attachment C. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:
  - ii. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;



- iii. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,
  - iv. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (See MRP Section IV.E.3. for guidance manuals).
5. The discharge shall not cause a violation of any applicable water quality standard for receiving waters.

If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments, thereto, the Regional Board will revise and modify this Order in accordance with such standards.

**D. Final Ambient WLAs for Pollutants in Sediment for Storm Water Dischargers**

The following are the final ambient WLAs. They are measured as in-stream annual averages at the base of each subwatershed where the discharges are located.

The final WLAs must be achieved and become sediment limitations after the sampling indicates that the Discharger is able to comply with the final WLAs or at the end of the 20-year compliance schedule specified in the TMDL (March 24, 2026), whichever occurs first. In either event, the permit will be reopened at that time to include appropriate sediment limitations.

<u>Constituents</u>	<u>Units</u>	<u>Discharge Monthly Average</u>	<u>Limitations Daily Maximum</u>
Chlordane	µg/g	--	0.0033
4,4-DDD	µg/g	--	0.002
4,4-DDE	µg/g	--	0.0014
4,4-DDT	µg/g	--	0.0003
Dieldrin	µg/g	--	0.0002
PCBs	µg/g	--	0.12
Toxaphene	µg/g	--	0.0006

**E. Interim Ambient WLAs for Pollutants in Sediment for Storm Water Dischargers**

The following sediment interim WLAs are effective as sediment limitations from through June 26, 2014 (five years from the effective date of this permit).

<u>Constituents</u>	<u>Units</u>	<u>Discharge</u>	
		<u>Monthly Average</u>	<u>Daily Maximum</u>
Chlordane	µg/g	--	0.0033
4,4-DDD	µg/g	--	0.014
4,4-DDE	µg/g	--	0.17
4,4-DDT	µg/g	--	0.025
Dieldrin	µg/g	--	0.0011
PCBs	µg/g	--	25.7
Toxaphene	µg/g	--	0.23

The implementation schedule for the TMDL (Resolution No. R4-2005-0010) provides for interim sediment limitations through March 24, 2026 (twenty years from the effective date of the Basin Plan Amendment).

## II. Requirements

### A. Pollution Prevention and Best Management Practices Plans

The Discharger shall develop, within 90 days of the effective date of this Order, the following plans. If necessary, the plans shall be updated to address any changes in operation and/or management of the facility. Updated plans shall be submitted to the Regional Board within 30 days of revision.

1. A *Storm Water Pollution Prevention Plan* (SWPPP) that describes site-specific management practices for minimizing storm water runoff from being contaminated, and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements contained in Attachment A and submitted to the Regional Board within 90 days of the effective date of this Order.
2. A *Best Management Practices Plan* (BMPP). The purpose of the BMPP is to establish site-specific procedures that will prevent the discharge of pollutants in non-storm water discharges. The BMPP shall be site-specific and shall cover all areas of the facility.
3. *Compliance Plan*. The interim sediment limitations stipulated in section I.E. of this Order for OC Pesticides and PCBs in sediment shall be in effect for a period not to extend beyond November 23, 2012. Thereafter, the Discharger shall comply with the limitations specified for OC Pesticides and PCBs in section I.D. in of this Order.
4. The Discharger shall develop and submit, within one year of the effective date of this Order, a compliance plan that will identify the measures that will be taken to reduce the concentrations of OC Pesticides and PCBs in

sediment at the base of the subwatershed discharging to Arroyo Simi. This plan must evaluate options to achieve compliance with the final sediment limitations within the deadline specified above.

5. The Discharger shall submit annual reports to describe the progress of studies and or actions undertaken to reduce the OC Pesticides and PCBs in the effluent and the sediment, and to achieve compliance with the limitations in this Order by the deadline specified above. The Regional Water Board shall receive the first annual progress report at the same time the annual summary report is due, as required in section VI. of the MRP.
6. *Pollutant Minimization Plan (PMP)*. The purpose of the BMPP is to establish site-specific procedures that will prevent the discharge of pollutants in non-storm water discharges. The BMPP shall be site-specific and shall cover all areas of the facility.
  - i. The Discharger shall develop a PMP to maintain effluent concentrations of OC Pesticides and PCBs at or below the effluent limitations specified in Receiving Water Limitations section I.C.1 and Interim Ambient Mass of Pollutants in Sediment for Storm water Dischargers specified in section I.E. of this Order. The PMP shall include the following:
    - a. Annual review and monitoring of the receiving water, sediment in the receiving water, and the effluent for OC Pesticides and PCBs;
    - b. Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations at or below the effluent limitation;
    - c. Implementation of appropriate cost-effective control measures consistent with the control strategy;
    - d. An annual status report that shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with section I.B of the MRP, and include:
      - (i) All PMP monitoring results for the previous year;
      - (ii) A list of potential sources of OC Pesticides and PCBs;
      - (iii) A summary of all actions undertaken pursuant to the control strategy;
      - (iv) A description of actions to be taken in the following year.

B. Pursuant to the requirements of 40 CFR 122.42(a), the Discharger must notify the Board as soon as it knows, or has reason to believe (1) that it has begun or expected to begin, to use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has occurred, or will occur, in concentrations that exceed the specified limitations in 40 CFR 122.42(a).

C. Compliance Determination

1. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement II. C. of *M&RP*), then the Discharger is out of compliance.

2. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:

a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.

b. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples as early as flow is available during the month. All five analytical results shall be reported in the monitoring report for that quarter, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II. C. of *M&RP*), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement II. C. of *M&RP*), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.

- d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.
3. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.
4. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and
  - a. If the number of measurements (n) is odd, then the median will be calculated as  $X_{(n+1)/2}$ , or
  - b. If the number of measurements (n) is even, then the median will be calculated as  $[X_{n/2} + X_{(n/2)+1}]$ , i.e. the midpoint between the  $n/2$  and  $n/2+1$  data points.
5. Compliance with the pH limitation – If the receiving water pH downstream of the discharge, exceeds 8.5 pH units as a result of:
  - a. high pH in the storm water, or
  - b. elevated pH in the receiving water upstream of the discharge,then the exceedance shall not be considered a violation.
6. Compliance with the temperature limitation – If the receiving water temperature downstream of the discharge, exceeds 86°F as a result of:
  - a. high temperature in the ambient air, or
  - b. elevated temperature in the receiving water upstream of the discharge,then the exceedance shall not be considered a violation.
7. The Discharger shall comply with benchmarks and receiving water limitations through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the BMP plan and its components and other requirements of this Order including any modifications. The BMP plan and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of Water Quality Objectives or Water Quality Standards (collectively, Water Quality Standards) persist, notwithstanding implementation of the BMP and its components and other requirements of this permit, the Discharger shall

assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

- a. Upon a determination by either the Permittee or the Regional Board that discharges are causing or contributing to an exceedance of an applicable Water Quality Standard, the Discharger shall within 24 hours notify and thereafter submit a revised BMP compliance report (as described in the Monitoring and Reporting Program) to the Regional Board that describes the BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of Water Quality Standards. This BMP Compliance Report is due to the Regional Board 60 days after exceedance of a benchmark. The BMP Compliance Report shall include an implementation schedule along with descriptions and proposed installation locations of the upgrades or new BMPs. The Executive Officer at the Regional Board may require modifications to the BMP Compliance Report.
  - b. Submit any modifications to the BMP Compliance Report required by the Regional Board within 30 days of notification.
  - c. Within 30 days following the approval of the BMP Compliance Report, the Discharger shall revise the BMP Plan and its components and monitoring program to incorporate the approved modifications that have been and will be implemented; and implementation schedule, and any additional monitoring required.
  - d. Implement the revised BMP plan and its components and monitoring program according to the approved schedule.
8. So long as the Discharger has complied with the procedures set forth above and is implementing the revised BMP plan and its components, the Discharger does not have to repeat the same procedure for continuing or recurring exceedances of the same effluent limitations or receiving water limitation unless directed by the Regional Board to develop additional BMPs.
- D. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section II.E.3., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.
- E. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States is prohibited unless specifically authorized elsewhere in

this permit. This requirement is not applicable to products used for lawn and agricultural purposes. Discharge of chlorine for disinfection in plant potable and service water systems and in sewage treatment is authorized.

- F. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- G. There shall be no discharge of PCB compounds, such as those once commonly used for transformer fluid.
- H. Compliance with the sediment effluent concentrations will be determined by calculating the in-stream annual average at the base of each subwatershed where the discharges are located. The Boeing SSFL discharge is located in Arroyo Simi and the sediment concentration at Arroyo Simi East of Hitch Boulevard or at Simi Valley Water Quality Control Plant should not exceed the interim effluent limitations. Since the facility is located near the top of the watershed, the Discharger may choose to collect the sediment samples closer to the facility.
- I. The Discharger shall notify the Executive Officer in writing no later than six months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
  - a. Name and general composition of the chemical,
  - b. Frequency of use,
  - c. Quantities to be used,
  - d. Proposed discharge concentrations, and
  - e. USEPA registration number, if applicable.

No discharge of such chemical shall be made prior to the Executive Officer's approval.

- J. The Regional Board and USEPA shall be notified immediately by telephone, of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged; written confirmation shall follow as soon as possible but not later than five working days after occurrence.

### III. Provisions

- A. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated hereinbefore and the attached Standard Provisions, those provisions attached herein prevail. Boeing shall report to the Regional Board any monitoring data that exceeds the detection limit for monitored constituents without effluent limitations. The report shall be reported, via facsimile, within 24 hours of the Discharger receiving the data from the lab.

Regional Board staff will bring a reopener to the Regional Board within 90 days of determining that reasonable potential exists to cause or to contribute to an exceedance of water quality standards.

- B. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.
- C. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- D. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Board to local agencies.
- E. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- F. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.

#### **IV. Reopeners**

- A. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limitations based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the discharger. Notwithstanding the foregoing, in the event that reasonable potential analyses indicate that a pollutant has reasonable potential, the Regional Board staff shall bring an appropriate modification to the Regional Board, at the next practicable Board meeting.



- B. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- C. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum levels (MLs).
- D. This Order may be reopened and modified to consider incorporation of a site specific or regional design storm (based on the evaluation of the results of the Design Storm Project) and subsequent policy considerations.
- E. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for Los Angeles River or the Calleguas Creek.
- F. This Order may be reopened upon the submission by the discharger, of adequate information, as determined by the Regional Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- G. This Order may be reopened and modified, to revise the toxicity language once that language becomes standardized.
- H. In accordance with Provision I.B.7, this Order may be reopened and modified to incorporate interim limitations, to the extent authorized by law, while DTSC revises and reissues updated RCRA corrective action requirements or permits, as appropriate, to ensure compliance with this Order.
- I. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity.
- J. This Order may be reopened and modified to revise the compliance schedule specified in Section I.B.4 for discharges from Outfalls 008 and 009, if the Discharger fails to comply with the California Water Code Section 13304 Order to Perform Interim/Source Removal Action of Soil in the Areas of Outfalls 008 and 009 Drainage Areas, issued on December 3, 2008.

**V. Expiration Date**

This Order expires on April 10, 2014.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the expiration date as application for issuance of new waste discharge requirements.

**VI. Previous Permits Superseded**

Order No. R4-2004-0111, adopted by this Board on July 1, 2004, is superseded by this Order.

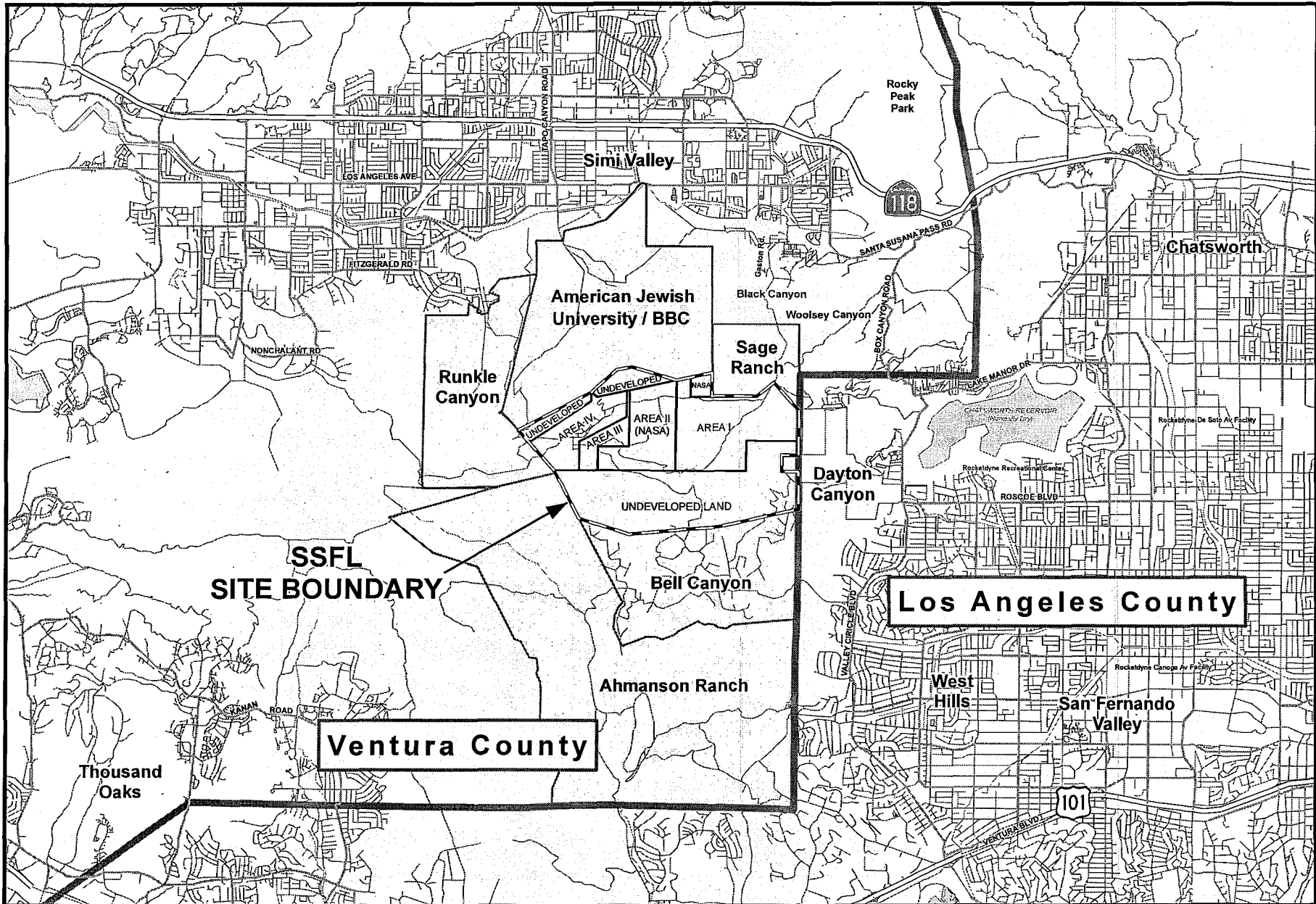
Order No. R4-2006-0008, adopted by this Board on January 19, 2006, is superseded by this Order.

Order No. R4-2006-0036, adopted by this Board on March 9, 2006, is superseded by this Order.

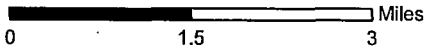
Order No. R4-2007-0055, adopted by this Board on November 1, 2007, is superseded by this Order.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on May 8, 2009.

  
\_\_\_\_\_  
Tracy J. Egoscue  
Executive Officer



1 inch equals 1.5 miles



**SANTA SUSANA FIELD LABORATORY**

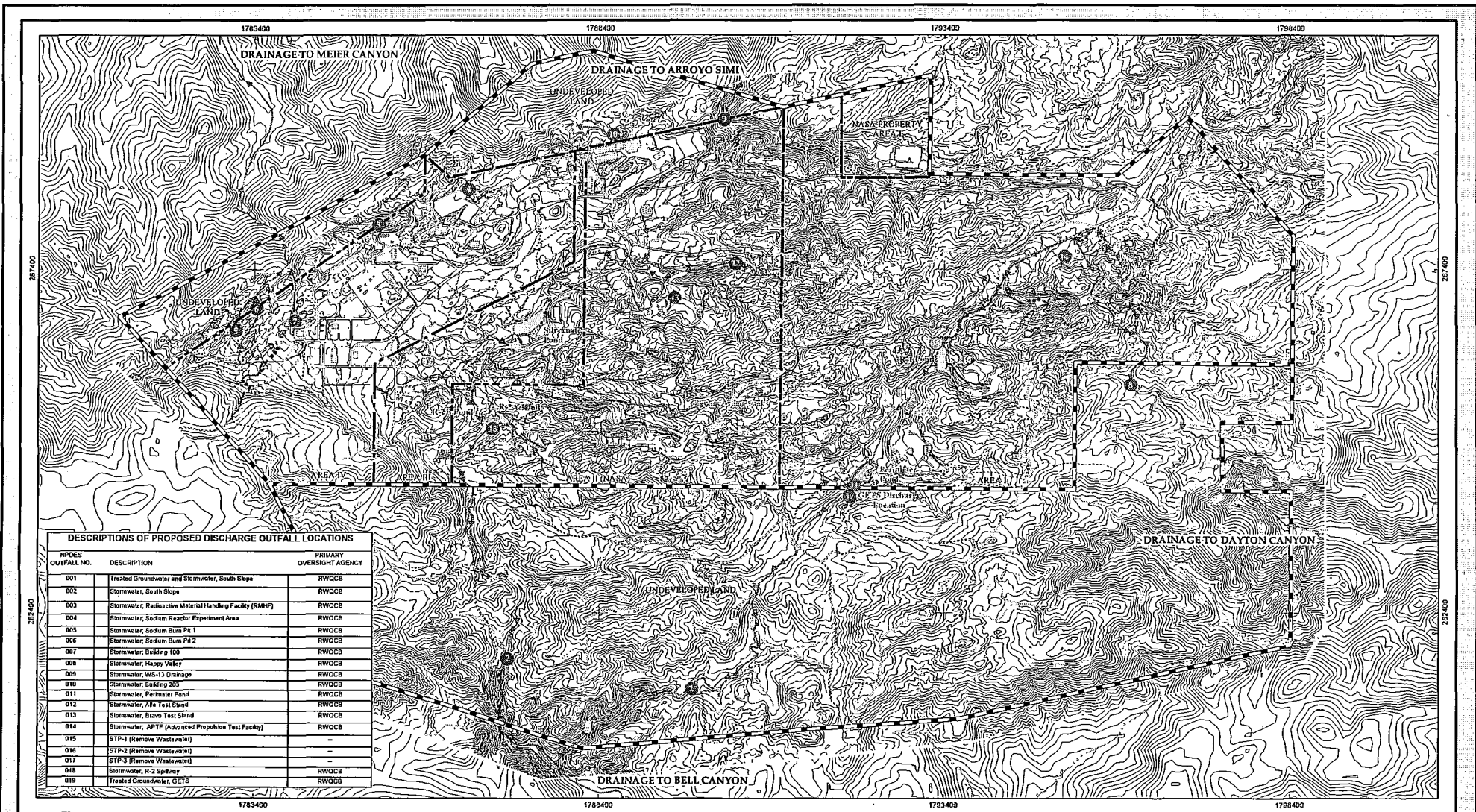
Document: Offsite-Report-Regional\_Map.mxd

Date: Dec 10, 2007

**Regional Map**

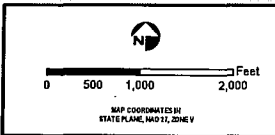
**FIGURE**

**1-1**



**DESCRIPTIONS OF PROPOSED DISCHARGE OUTFALL LOCATIONS**

NPDES OUTFALL NO.	DESCRIPTION	PRIMARY OVERSIGHT AGENCY
001	Treated Groundwater and Stormwater, South Slope	RWQCB
002	Stormwater, South Slope	RWQCB
003	Stormwater, Radioactive Material Handling Facility (RMHF)	RWQCB
004	Stormwater, Sodium Reactor Experiment Area	RWQCB
005	Stormwater, Sodium Burn Pit 1	RWQCB
006	Stormwater, Sodium Burn Pit 2	RWQCB
007	Stormwater, Baking 100	RWQCB
008	Stormwater, Happy Valley	RWQCB
009	Stormwater, WS-13 Drainage	RWQCB
010	Stormwater, Baking 203	RWQCB
011	Stormwater, Perimeter Pond	RWQCB
012	Stormwater, Alfa Test Stand	RWQCB
013	Stormwater, Bravo Test Stand	RWQCB
014	Stormwater, APTF (Advanced Propulsion Test Facility)	RWQCB
015	STP-1 (Remove Wastewater)	-
016	STP-2 (Remove Wastewater)	-
017	STP-3 (Remove Wastewater)	-
018	Stormwater, R-2 Spillway	RWQCB
019	Treated Groundwater, GETS	RWQCB



- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)

- Legend**
- Effluent Pathways
  - Surface Water Drainage Divide
  - Natural Drainage
  - Concrete Lined Drainage
  - Graded Drainage

Surface Water Reclamation Ponds

- Base Map Legend**
- BSP Property Boundary
  - Administrative Area Boundary
  - Ground Elevation Contours
  - Drainage Pathways
  - AG Outfall
  - Dirt Road
  - Existing Building or Structure

**Site Map with Outfall Locations and Storm Water Drainage Systems**

Date: Jan 28, 2011  
 File: T:\projects\lock\plot\assump\MAPS\DRS\DRS.mxd

# ATTACHMENT "A"

-11-

## SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

### 1. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

- a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.
- b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

### 2. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

-12-

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

### 3. Planning and Organization

#### a. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Section B of this General Permit. The SWPPP shall clearly identify the General Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

#### b. Review Other Requirements and Existing Facility Plans

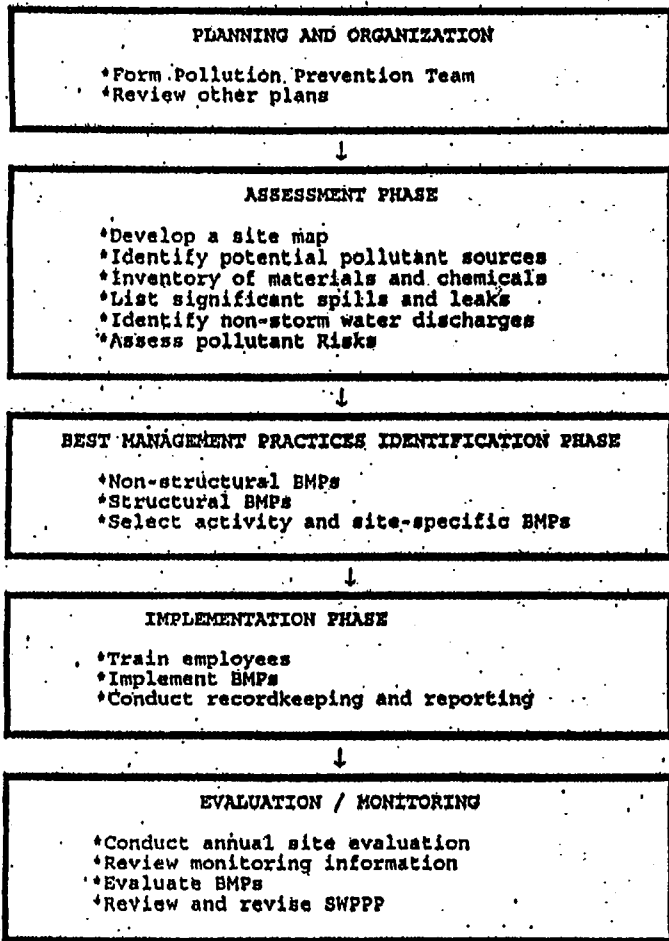
The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

### 4. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-1/2 x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A

FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS



The following information shall be included on the site map:

- The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.
- Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. Description of Potential Pollutant Sources

- a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

i. Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process; and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302)

that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations (CFR), Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this General Permit.

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D, are prohibited by this General Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D, are authorized by this General Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

vi. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

- b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and

potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

**7. Assessment of Potential Pollutant Sources**

a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:

- i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and
- ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8 below.

**8. Storm Water Best Management Practices**

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B  
EXAMPLE  
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND  
CORRESPONDING BEST MANAGEMENT PRACTICES  
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery	fuel oil	Use spill and overflow protection
		Spills caused by topping off fuel tanks	fuel oil	Minimize run-on of storm water into the fueling area
		Hosing or washing down fuel area	fuel oil	Cover fueling area
		Leaking storage tanks	fuel oil	Use dry cleanup methods rather than hosing down area
		Rainfall running off fueling area, and rainfall running onto and off fueling area	Fuel oil	Implement proper spill prevention control program

Implement adequate preventative maintenance program to preventive tank and line leaks

Inspect fueling areas regularly to detect problems before they occur

Train employees on proper fueling, cleanup, and spill response techniques.



The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

a. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. Spill Response

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

v. Employee Training

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. Recordkeeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

viii. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

ix. Inspections

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

x. Quality Assurance

This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. Structural BMPs

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc., that do not allow storm water to discharge from the facility.

iii. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. Secondary Containment Structures

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc., that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

Annual Comprehensive Site Compliance Evaluation

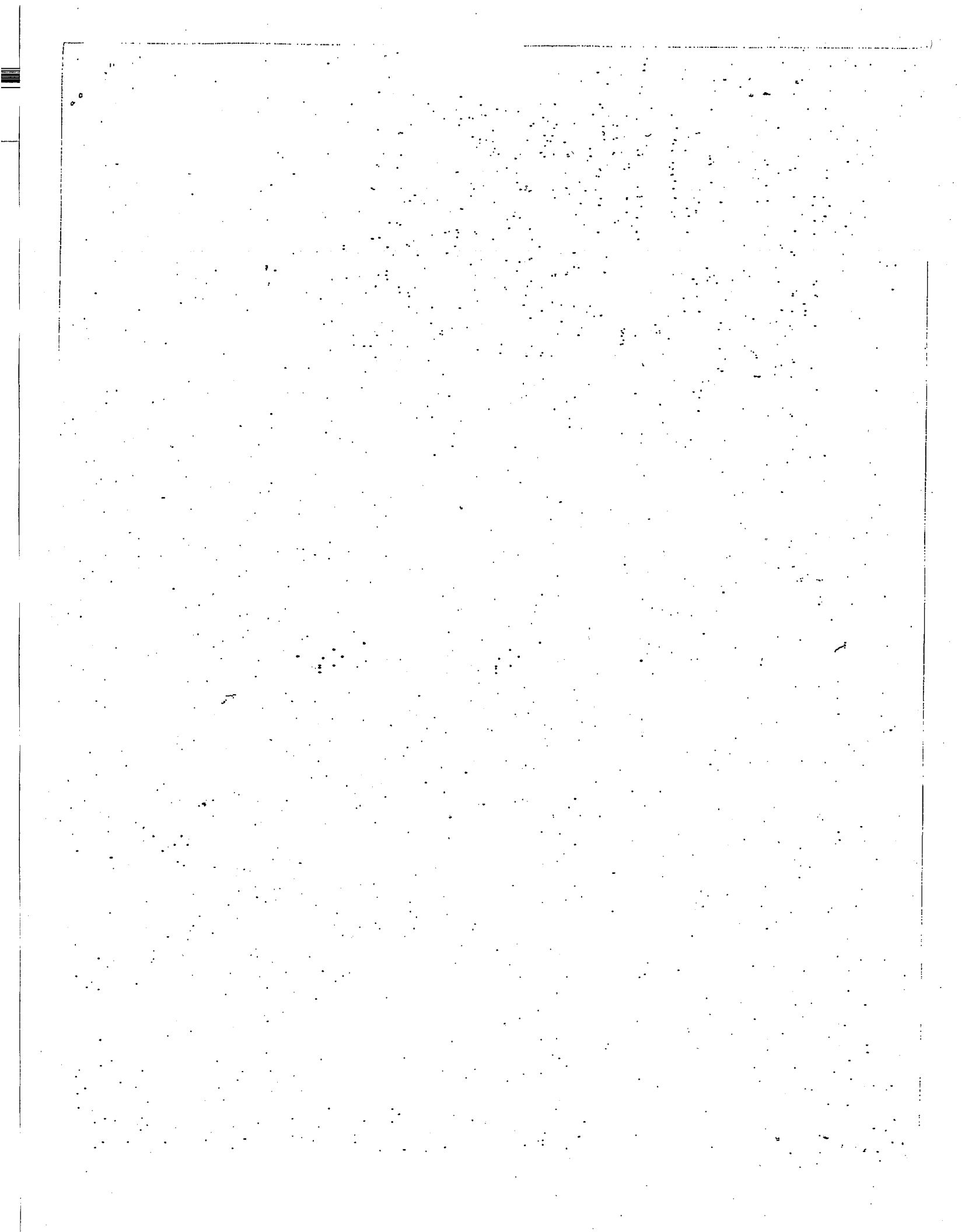
The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

- a. A review of all visual observation records, inspection records, and sampling and analysis results.
- b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.
- d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9, and 10, of Section C. of this General Permit.

10. SWPPP General Requirements

- a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

- c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.
- e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or Sections A.1, A.9, A.10.c, and A.10.d of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.



## Attachment C

### GENERIC TOXICITY REDUCTION EVALUATION WORKPLAN (TRE) INDUSTRIAL

1. Information and Data Acquisition
  - a. Regulatory information
    - i. NPDES permit limits
    - ii. Trigger
  - b. Facility monitoring data
    - i. NPDES monitoring data
    - ii. In-house monitoring data
    - iii. State agency monitoring data
  - c. Plant and Process Description
    - i. Process and treatment plant description
      - (1) numbers and types of streams
      - (2) their size
      - (3) scheduled changes or events in process-stream operation
      - (4) types and configurations of equipment
      - (5) flow equalization facilities
      - (6) records of treatment plant upsets
    - ii. Physical/chemical monitoring data
      - (1) chemical analyses of process streams
      - (2) physical/chemical analyses of treatment streams
2. Housekeeping
  - a. Initiation of housekeeping study
    - i. Identify areas which may contribute to toxicity
    - ii. Reduce these contributions through best management practices (BMPs), administrative, and procedural controls
  - b. Evaluation of housekeeping practices
    - i. Review of plant policies
    - ii. "Walk-through" inspection
  - c. Identification of potential problem areas
    - i. Probability of release of toxic material
    - ii. Type and frequency of release which may occur
    - iii. Quantity of toxic substances involved
    - iv. Toxicity of substances released
    - v. Potential downstream impact of the substances released
    - vi. Effect of release on final effluent
  - d. Identification of corrective measures
    - i. Area cleanup
    - ii. Process or operational changes
    - iii. Material loss collection and recovery
    - iv. Chemical and biological testing of contained waters prior to release from diked storage areas
    - v. Increased storage capacity for contained waters
    - vi. Equipment modifications or changes
  - e. Selection of corrective measures
  - f. Implementation of corrective measures
3. Treatment Plant Optimization
  - a. Evaluation of influent wastestreams
    - i. Raw chemicals or materials used in the process
    - ii. Byproducts or reaction products produced during the process
    - iii. Reaction vessels, valves, piping systems, overflow points, and other mechanical aspects of the system
    - iv. Wastestreams produced, volumes, and routing paths

- v. Non-point sources
- b. Description and evaluation of the treatment system
  - i. Design basis for each constituent, including variability in flow conditions and concentrations
  - ii. Treatment sequence
  - iii. Performance projections by constituents
  - iv. Operational flexibility of each process
  - v. Treatment objectives and projected effluent standards
- c. Analysis of treatment system operation
  - i. Flow loading
  - ii. Mass loading
  - iii. Frequency and impact of shock loadings
    - (1) normal cleaning and maintenance
    - (2) spills and upsets
  - iv. Changes in operating procedures
- 4. Chemical optimization
  - a. Information gathering
    - i. Examination of wastestreams produced by specific production processes
    - ii. Chemicals and raw materials and their contaminants and by-products used in the process
    - iii. Chemicals used in treatment
    - iv. Chemicals and material use rates
    - v. Percentage of chemical in final product
    - vi. Chemical reuse and waste recycling activities
  - b. Process chemical review
    - i. List all chemicals used
    - ii. List all quantities
    - iii. Determine pounds per product
    - iv. Determine pounds per gallon of wastewater discharged
  - c. MSDS information review
    - i. Obtain MSDS for all process chemicals discharged
    - ii. Highlight MSDS sections on aquatic toxicity
    - iii. Examine Hazardous Ingredient section and note "hazardous substances" listed
    - iv. Categorize all chemicals by hazard and irritation potential and use standard references to obtain aquatic toxicity information, if possible
  - d. Chemical composition screen of incoming raw materials
  - e. Outcome of chemical optimization phase
    - i. List of all chemicals used in processing and manufacturing the product
    - ii. MSDS and literature reviews will be on file when needed
    - iii. List of all chemicals and raw material purchased on a monthly basis and a record of production volumes during the same time period

**REVISED  
ATTACHMENT H**

**Table 3-1. One-hour Average Objective for Ammonia-N for Freshwaters (mg N/L)**

<u>pH</u>	<u>Waters Designated COLD and/or MIGR</u>	<u>Waters Not Designated COLD and/or MIGR</u>
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1.32

Reference: U.S. EPA 1999 Update of Ambient Water Quality Criteria for Ammonia<sup>1</sup>

<sup>1</sup> For freshwaters, the one-hour average concentration (Criteria Maximum Concentration or CMC) of total ammonia as nitrogen (in mg N/L) shall not exceed the values described by the following equations.

For waters designated COLD and/or MIGR:

$$\text{CMC or One-hour Average Concentration} = \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$$

Or for waters not designated COLD and/or MIGR:

$$\text{CMC or One-hour Average Concentration} = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

Effective: June 19, 2003

Table 3-2. 30-day Average Objective for Ammonia-N for Freshwaters Designated SPWN (mg N/L)

pH	Temperature, °C																
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	6.67	6.46	6.06	5.68	5.33	4.99	4.68	4.39	4.12	3.86	3.62	3.39	3.18	2.98	2.80	2.62	2.46
6.6	6.57	6.36	5.97	5.59	5.25	4.92	4.61	4.32	4.05	3.80	3.56	3.34	3.13	2.94	2.75	2.58	2.42
6.7	6.44	6.25	5.86	5.49	5.15	4.83	4.52	4.24	3.98	3.73	3.50	3.28	3.07	2.88	2.70	2.53	2.37
6.8	6.29	6.10	5.72	5.36	5.03	4.72	4.42	4.14	3.89	3.64	3.42	3.20	3.00	2.82	2.64	2.47	2.32
6.9	6.12	5.93	5.56	5.21	4.89	4.58	4.30	4.03	3.78	3.54	3.32	3.11	2.92	2.74	2.57	2.41	2.25
7.0	5.91	5.73	5.37	5.04	4.72	4.43	4.15	3.89	3.65	3.42	3.21	3.01	2.82	2.64	2.48	2.32	2.18
7.1	5.67	5.49	5.15	4.83	4.53	4.25	3.98	3.73	3.50	3.28	3.08	2.88	2.70	2.53	2.38	2.23	2.09
7.2	5.39	5.22	4.90	4.59	4.31	4.04	3.78	3.55	3.33	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.99
7.3	5.08	4.92	4.61	4.33	4.06	3.80	3.57	3.34	3.13	2.94	2.76	2.58	2.42	2.27	2.13	2.00	1.87
7.4	4.73	4.59	4.30	4.03	3.78	3.55	3.32	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.98	1.86	1.74
7.5	4.36	4.23	3.97	3.72	3.49	3.27	3.06	2.87	2.69	2.53	2.37	2.22	2.08	1.95	1.83	1.72	1.61
7.6	3.98	3.85	3.61	3.39	3.18	2.98	2.79	2.62	2.45	2.30	2.16	2.02	1.90	1.78	1.67	1.56	1.47
7.7	3.58	3.47	3.25	3.05	2.86	2.68	2.51	2.36	2.21	2.07	1.94	1.82	1.71	1.60	1.50	1.41	1.32
7.8	3.18	3.09	2.89	2.71	2.54	2.38	2.23	2.10	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
7.9	2.80	2.71	2.54	2.38	2.24	2.10	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17	1.10	1.03
8.0	2.43	2.36	2.21	2.07	1.94	1.82	1.71	1.60	1.50	1.41	1.32	1.24	1.16	1.09	1.02	0.957	0.897
8.1	2.10	2.03	1.91	1.79	1.68	1.57	1.47	1.38	1.29	1.21	1.14	1.07	1.00	0.938	0.879	0.824	0.773
8.2	1.79	1.74	1.63	1.53	1.43	1.34	1.26	1.18	1.11	1.04	0.973	0.912	0.855	0.802	0.752	0.705	0.661
8.3	1.52	1.48	1.39	1.30	1.22	1.14	1.07	1.00	0.941	0.882	0.827	0.775	0.727	0.682	0.639	0.599	0.562
8.4	1.29	1.25	1.17	1.10	1.03	0.966	0.906	0.849	0.796	0.747	0.700	0.656	0.615	0.577	0.541	0.507	0.475
8.5	1.09	1.06	0.990	0.928	0.870	0.816	0.765	0.717	0.672	0.630	0.591	0.554	0.520	0.487	0.457	0.428	0.401
8.6	0.920	0.892	0.836	0.784	0.735	0.689	0.646	0.606	0.568	0.532	0.499	0.468	0.439	0.411	0.386	0.362	0.339
8.7	0.778	0.754	0.707	0.663	0.622	0.583	0.547	0.512	0.480	0.450	0.422	0.396	0.371	0.348	0.326	0.306	0.287
8.8	0.661	0.641	0.601	0.563	0.528	0.495	0.464	0.435	0.408	0.383	0.359	0.336	0.315	0.296	0.277	0.260	0.244
8.9	0.565	0.548	0.513	0.481	0.451	0.423	0.397	0.372	0.349	0.327	0.306	0.287	0.269	0.253	0.237	0.222	0.208
9.0	0.486	0.471	0.442	0.414	0.389	0.364	0.342	0.320	0.300	0.281	0.264	0.247	0.232	0.217	0.204	0.191	0.179

\* At temperatures below 14 °C, the objective is the same as that shown for 14 °C.

Reference: U.S. EPA 1999 Update of Ambient Water Quality Criteria for Ammonia<sup>2</sup>

<sup>2</sup> For freshwaters designated SPWN, the thirty-day average concentration (Criteria Continuous Concentration or CCC) of total ammonia as nitrogen (in mg N/L) shall not exceed the values described by the following equation.

$$\text{CCC or 30-day Average Concentration} = \left( \frac{0.0577}{1+10^{7.688-\text{pH}}} + \frac{2.487}{1+10^{\text{pH}-7.688}} \right) * \text{MIN} \left( 2.85, 1.45 * 10^{0.028*(25-T)} \right)$$

Where T = temperature expressed in °C.

In addition, for freshwaters, the highest four-day average within the 30-day period shall not exceed 2.5 times the 30-day average objective as calculated above.