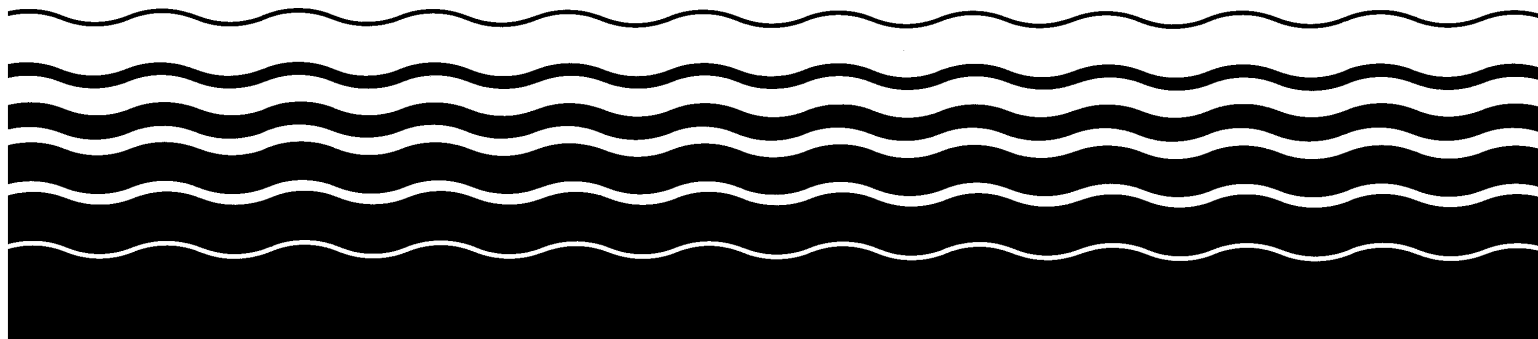




# **Statistical Support Document for Proposed Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Industry**



**Statistical Support Document for Proposed Effluent Limitations  
Guidelines and Standards for the  
Metal Products and Machinery Industry**

Prepared for:

U.S. Environmental Protection Agency  
Office of Science and Technology  
Engineering and Analysis Division  
1200 Pennsylvania Ave., NW (MC 4303)  
Washington, DC 20460

Prepared by:

Science Applications International Corporation  
Environmental and Health Sciences Group  
Health and Environment Studies and Systems Division  
11251 Roger Bacon Drive  
Reston, VA 20190

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## **ACKNOWLEDGMENTS AND DISCLAIMER**

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## **ABSTRACT**

This document describes the statistical methodology used to develop effluent limitations for the Metal Products and Machinery Industry. It also presents tables of the data used to develop limits.

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## **CHAPTER 1**

### **OVERVIEW OF ORGANIZATION AND CONTENTS OF DOCUMENT**

This document describes the statistical analyses of pollutant concentrations in effluent wastewater from metal products and machinery facilities. EPA used these statistical analyses in developing the effluent limitations guidelines and standards in the rulemaking for the Metal Products and Machinery Industry (MP&M). Details of all statistical analyses conducted and data used in the analyses to support the effluent limitations guidelines and standards for the MP&M are provided. This document is organized into six chapters, a glossary of terms (chapter 7), and five appendices. The following list summarizes the content of each chapter and appendix.

#### **Chapter 1: Overview**

- Describes the organization of the document and summarizes the contents of each chapter and appendix.

#### **Chapter 2: Analytical Data Collection Efforts and Definition of Options**

- Provides an overview of the analytical data collection efforts and defines the technology options.

#### **Chapter 3: Description of Data Conventions**

- Presents data conventions and describes data aggregation and review procedures.

#### **Chapter 4: Statistical Methodology**

- Formulates the modified delta-lognormal distribution that EPA used to derive the proposed limitations.

#### **Chapter 5: Estimation under the Modified Delta-Lognormal Distribution**

- Describes the estimation of long-term averages (LTAs) and variability factors (VFs) at the facility and pollutant levels.

#### **Chapter 6: Derivation of the Proposed Limitations**

- Describes the derivation of the proposed limitations.

#### **Chapter 7: Glossary of Terms**

- Defines technical terms used in this document.

#### **Appendix A: Daily Effluent Data Listing**

- Provides a listing of effluent daily data by subcategory and option for regulated pollutants.

#### **Appendix B: Effluent Data Summary Statistics**

- Provides summary statistics by subcategory and option for the data from each facility used to characterize the treatment in the regulated options.

#### **Appendix C: Facility-Level Long-Term Averages and Variability Factors**

- Summarizes facility-specific LTAs and VFs by subcategory and option.

**Appendix D: Pollutant-Level Long-Term Averages, Variability Factors, and Limitations**

- Presents pollutant-level LTAs, VF estimates, and concentration-based limitations by subcategory and option.

**Appendix E: Effluent Limitations**

- Summarizes the daily and monthly limitations by treatment, subcategory, and pollutant.

**Appendix F: Production-based Limits for the Steel Forming and Finishing Subcategory**

- Lists the daily and monthly production-based limitations by pollutant and manufacturing process for the Steel Forming and Finishing subcategory.



**CHAPTER 2**  
**ANALYTICAL DATA COLLECTION EFFORTS AND DEFINITION OF OPTIONS**

**2.1 EPA Wastewater Sampling**

Pollutant concentration data collected during EPA wastewater sampling efforts and facility supplied data are the basis of estimates for this effluent guideline. Data from 54 sampling episodes were used to derive pollutant-specific concentration-based limitations for the following subcategories: General Metals, Metal Finishing Job Shops, Non-Chromium Anodizing, Printed Wiring Boards, Oily Wastes, Railroad Line Maintenance, Shipbuilding Dry Docks, and Steel Forming and Finishing.

EPA collected influent and effluent data from wastewater treatment systems at MP&M facilities during Phase I (1990-1993) and Phase II (1995-1999) data collection efforts. EPA used these data to develop limitations for all eight subcategories. **Table 2-1** provides a summary of the number of episodes and facilities used for limitation development by subcategory. Because EPA sampled a number of facilities two or more times, the number of facilities differs from the number of episodes shown in **Table 2-1**.

**Table 2-1.**  
**Number of Facilities and Sampling Episodes Used for Limitation Development**

Subcategory	Number of Facilities			Number of Sampling Episode		
	Phase I	Phase II	Overall	Phase I	Phase II	Overall
General Metals	13	15	28	14	15	29
Metal Finishing Job Shops	2	4	6	2	8	10
Non-Chromium Anodizing	0	2	2	0	2	2
Printed Wiring Boards	0	3	3	0	3	3
Oily Wastes	1	3	4	1	4	5
Railroad Line Maintenance	0	1	1	0	1	1
Shipbuilding Dry Dock	0	3	3	0	3	3
Steel Forming and Finishing	13	15	28	14	15	29

## **2.2 Definition of Subcategories and Technology Options**

This section defines the subcategories and technology options selected by EPA for this proposed rule. EPA has divided the MP&M point source category into eight subcategories: General Metals, Non-chromium Anodizing, Metal Finishing Job Shops, Printed Wiring Boards, Steel Forming and Finishing, Oily Wastes, Railroad Line Maintenance, and Shipbuilding Dry Dock.

Sections 2.2.1 and 2.2.2 below describe the subcategories and technology options.

### **2.2.1 Subcategorization Summary**

#### *General Metals*

MP&M facilities that discharge metal-bearing wastewater (with or without oil-bearing wastewater) that do not belong to the Printed Wiring Board, Non-Chromium Anodizing, Metal Finishing Job Shops, or Steel Forming and Finishing subcategories. General Metals facilities usually perform manufacturing or heavy rebuilding of metal products, parts, or machines.

#### *Non-Chromium Anodizing*

Facilities that perform aluminum anodizing without the use of chromic acid or dichromate sealants in their operations.

#### *Metal Finishing Job Shops*

Job shops that perform one or more of the following: electroplating, electroless plating, anodizing, coating (chromating, phosphating, passivation, and coloring), chemical etching and milling, and printed circuit board manufacture. A job shop is defined as “a facility which owns not more than 50 percent (on an annual area basis) of the materials undergoing metal finishing” (40 CFR 433).

#### *Printed Wiring Board*

MP&M wastewater discharges from the manufacture, maintenance, and repair of printed wiring boards.

#### *Steel Forming and Finishing*

Facilities that perform MP&M operations or cold forming operations on steel wire, rod, bar, pipe, or tube. Limits for the Steel Forming and Finishing subcategory were generated using data from the General Metals subcategory because data were unavailable for the Steel Forming and Finishing subcategory.

#### *Oily Wastes*

MP&M facilities that discharge only oil-bearing wastewater and do not belong to any other MP&M subcategories.

#### *Railroad Line Maintenance*

Facilities that perform routine cleaning and light maintenance on railroad engines, cars, and car-wheel trucks and similar parts or machines. These facilities only perform MP&M unit operations defined as oily only and/or washing of final product.

### *Shipbuilding Dry Dock*

Process wastewater generated in or on dry docks and similar structures such as building ways, graving docks, marine railways, and lift barges at shipbuilding facilities (or shipyards).

### **2.2.2 Technology Options Selected**

In developing its technology options, EPA determined that a different set of wastewater treatment technologies was appropriate for facilities that performed unit operations that produced primarily metal-bearing wastewater than for those facilities that performed unit operations that produced primarily oily wastes. EPA concluded that the following subcategories typically produce metal-bearing wastewater (with or without associated oily-bearing wastestreams) and evaluated metals control technologies for these subcategories: General Metals, Metal Finishing Job Shops, Non-Chromium Anodizing, Printed Wiring Boards, and Steel Forming and Finishing. For the remaining subcategories (Oily Wastes, Railroad Line Maintenance, and Shipbuilding Dry Dock), EPA evaluated oily wastewater treatment technologies. EPA fully describes all of the technology options considered for each subcategory in Section 9 of the MP&M Technical Development Document.

**Table 2-2** displays the selected technology options by subcategory and according to whether the option applies to existing sources or to new sources.

**Table 2-2**  
**Selected Technology Options by Subcategory**

<b>Subcategory</b>	<b>Selected Option for Existing Sources</b>	<b>Selected Option for New Sources</b>
General Metals	Option 2	Option 4
Metal Finishing Job Shops	Option 2	Option 4
Non-Chromium Anodizing	Option 2	Option 2
Printed Wiring Boards	Option 2	Option 4
Steel Forming and Finishing	Option 2	Option 4
Oily Wastes	Option 6	Option 6
Railroad Line Maintenance	Option 10	Option 10
Shipbuilding Dry Dock	Option 10	Option 10

The following provides a brief description of the technologies included in each of the selected options.

#### *Option 2*

In-process flow control and pollution prevention, segregation of wastewater streams, preliminary treatment steps as necessary (including oils removal using oil-water separation by chemical emulsion breaking), chemical precipitation using lime or sodium hydroxide, and sedimentation using a clarifier.

*Option 4*

In-process flow control and pollution prevention, segregation of wastewater streams, preliminary treatment steps as necessary (including oils removal by ultrafiltration), chemical precipitation using lime or sodium hydroxide, and solids separation using a microfilter.

*Option 6*

In-process Flow Control, Pollution Prevention, and Oil-water separation by chemical emulsion breaking.

*Option 10*

In-process Flow Control, Pollution Prevention, and Oil-water separation by Dissolved Air Flotation. All of the selected options described above include the following in-process pollution prevention and water conservation technologies:

- Flow reduction using flow restrictors, conductivity meters, and/or timed rinses, for all flowing rinses, plus countercurrent cascade rinsing for all flowing rinses;
- Centrifugation and 100 percent recycling of painting water curtains; and
- Centrifugation and pasteurization to extend the life of water-soluble machining coolants reducing discharge volume by 80 percent.

## **CHAPTER 3 DESCRIPTION OF DATA CONVENTIONS**

This chapter discusses the types of data in the MP&M analytical database and the hierarchy and procedures for aggregating multiple sampling observations within a sampling day.

### **3.1 Data Review**

EPA's Sample Control Center (SCC) thoroughly reviewed and validated the EPA wastewater sampling data in the analytical database. During this review, the integrity of each sample was assessed to ensure that all specifications of the sampling protocol were met. In addition, engineers reviewed the data and determined that some samples should be excluded from the analyses. Samples with flags of 'T', which indicate one of the following conditions, were excluded from analyses.

- data for a treatment unit that is not a technology option
- data for a treatment system that was not operated at a proper pH for removal of targeted metals
- data for a treatment system with poor solid removal
- data for a treatment system that did not remove most of the pollutants targeted by the treatment system for removal and processed on site
- data associated with a process upset or improper sampling techniques that may impact treatment effectiveness or data quality
- data associated with specific analytes not detected in all raw wastewater influent samples to a treatment system
- data associated with specific analytes not detected in most raw wastewater influent samples to a treatment system and when detected, detected at low concentrations
- data associated with specific analytes with average raw influent concentration less than or equal to 10 times the minimum level of detection
- data associated with specific metal analytes that were not processed at the site
- data associated with specific analytes that may not have been present in a treatment system due to dilution from poor water use practices
- data associated with a treatment chemical associated with the treatment system when the chemical was not removed by the system comparably to other targeted pollutants
- data associated with specific analytes detected in the raw influent to a treatment system at low concentrations when compared to other MP&M sites or other metals processed on-site
- data for a treatment system when the concentrations of all targeted pollutants in the raw influent are low

Also during the data review, some samples were qualified with a greater than (>) sign, indicating that the reported concentration value is considered a lower limit of the actual value. This is because the reported concentration was outside the range of the analytical method. Some samples were labeled with a 'B' flag, indicating a pollutant was detected at below the minimum level of detection (sensor point). In both cases, the reported concentration values rather than the censored values were used for all computations.

### 3.2 Data Types

The MP&M analytical database, developed from the data reviewed and validated by SCC, contains the following three different types of samples delineated by certain qualifiers in the database:

- **Non-censored (NC):** a measured value, i.e., a sample measured above the level at which the detection decision was made.
- **Non-detect (ND):** samples for which analytical measurement did not yield a concentration above the sample-specific detection limit.
- **Right-censored (RC):** these samples were qualified with a greater than (> ) sign, signifying that the reported value is considered a lower limit of the actual concentration.

### 3.3 Data Aggregation

Aggregation of MP&M analytical data occurred at two levels. The first level aggregated pollutant concentration data from multiple grab samples collected from a given sampling point over a specified period of time. Multiple grab samples were collected when physical compositing of the samples was impractical. The second level aggregated data from field duplicate samples. This section identifies the levels of aggregation and the methods applied to data at each level. Conventions for handling censored and non-censored data during the aggregation process are also provided.

#### 3.3.1 Data Aggregation Across Multiple Grab Samples

Multiple grab samples are samples collected from a given sampling point over time. These samples are assigned different sample numbers. Multiple grab samples were collected when the concentration of pollutants was expected to vary during the course of sampling or when samples could not be physically composited. Within the MP&M database, Hexane Extractable Material (HEM) and Silica Gel Treated-Hexane Extractable Material (SGT-HEM) were reported as concentrations from multiple grab samples taken during one-day sampling periods. Sampling procedures require HEM and SGT-HEM to be collected as grab samples. If composited, most of the measurable amount of these analytes would remain on the composite jar due to their oily nature. Since LTAs and limitations were based on daily concentrations, multiple observations on a single day at the same sample point were averaged. Averaging analyte concentrations from multiple grab samples mathematically composites the data from the samples. The following table shows how multiple grab samples were aggregated within each sampling day/sample point combination.

**Table 3-1.  
Method for Averaging Multiple Grab Samples**

<b>If Observations are:</b>	<b>Label of “Average”</b>	<b>Value of “Average”</b>
All NC	NC	$ENC_i/n$
All ND	ND	Maximum Detection Limit
NC and ND	NC	$(ENC_i + EDL_i)/n$

n = number of grab samples per day  
DL = sample detection limit  
NC = detected sample

### 3.3.2 Aggregation of Field Duplicates

Another type of data aggregation for the MP&M data was performed when flags in the database identified field duplicate samples. Field duplicates are samples collected for a particular sampling point at approximately the same time, assigned different sample numbers, and flagged as duplicates for a single episode number/sampling point. Duplicates were collected for purposes of quality assurance/quality control. **Table 3-2** presents the methods used to aggregate duplicates.

**Table 3-2.  
Method for Averaging Field Duplicate Samples**

<b>If Observations are:</b>	<b>Label of “Average”</b>	<b>Value of “Average”</b>
Both NC	NC	$ENC_i/2$
Both ND	ND	Maximum Detection Limit
NC and ND	NC	$(NC + ND)/2$

NC = detected sample  
ND = sample detection limit

If multiple grab and field duplicate samples were collected from the same sampling point, the concentration data from field duplicate samples were averaged first, then the data from the resulting duplicate sample averages were averaged as a composite sample.

Listings of summary statistics following aggregation of grabs and field duplicates are presented in **Appendix B**.

## CHAPTER 4 STATISTICAL METHODOLOGY: MODIFIED DELTA-LOGNORMAL MODEL

### 4.1 Basic Overview of Delta-Lognormal Distribution

The lognormal distribution is often appropriate for modeling effluent data. However, the presence of NDs and very low concentration measurements in the MP&M effluent data led to the consideration of a modification to the lognormal distribution in modeling such data for several reasons. First, the lognormal model assumes that all concentration values are positively-valued. Second, the actual values of NDs are not known, though each ND has a concentration somewhere between zero and the reported detection limit. In this sense, ND measurements represent, in statistical terms, what are known as censored samples.

In general, censored samples are measurements for which the exact value is not known but is bounded either by an upper or lower numerical limit. Non-detects qualify in this framework as left-censored samples, which have an upper bound at the detection limit and a lower bound at zero. To model NDs as left-censored samples under a strictly lognormal density model, it is necessary to assume that the exact (but unknown) values of these measurements follow the same lognormal distributional pattern as the rest of the detected measurements and that they are positively-valued (i.e., greater than zero).

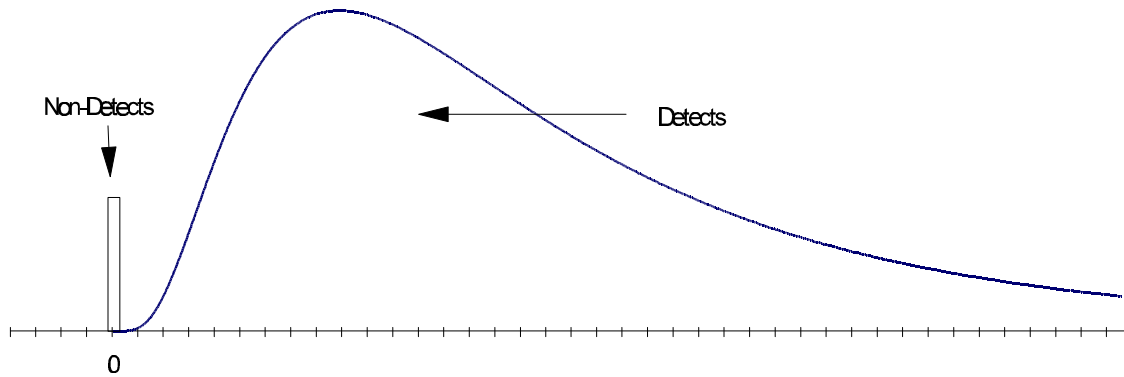
Therefore, two reasonably simple modifications to the lognormal density model have been used by EPA for several years. The first modification is known as the classical delta-lognormal model (**Figure 4-1**), first used in economic analysis to model income and revenue patterns (see Aitchison and Brown<sup>1</sup>). In this adaptation of the simple lognormal density, the model is expanded to include zero amounts. To do this, all positive amounts are grouped together and fit to a lognormal density. Then all zero amounts are segregated into another group of measurements representing a discrete distributional “spike” at zero. The resulting mixed distribution, combining a continuous density portion with a discrete-valued spike, is known as the delta-lognormal distribution. The delta in the name refers to the percentage of the overall distribution contained in the spike at zero, that is, the percentage of zero amounts.

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<sup>1</sup>. Aitchison, J. and Brown, J.A.C. (1963) *The Lognormal Distribution*. Cambridge University Press, pages 87-99.

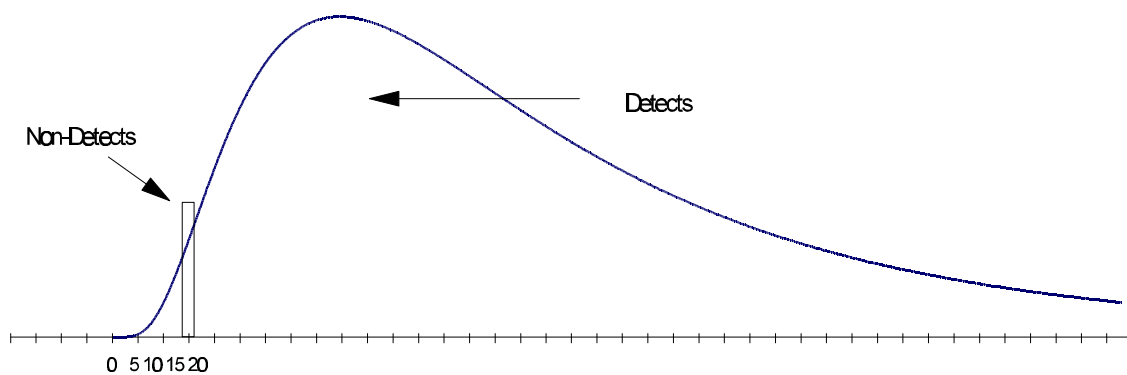


**Figure 4-1.**  
**Delta-lognormal Model**



Researchers at EPA (see Kahn and Rubin, 1989) further adapted the classical delta-lognormal model (“adapted model”) to account for ND measurements in the same fashion that zero measurements were handled in the original delta-lognormal. Instead of zero amounts and non-zero, positive amounts, the data consisted of NDs and detects. Rather than assuming that NDs represented a spike of zero concentrations, these samples were allowed to have a single positive value, usually equal to the minimum level of the analytical method (**Figure 4-2**). Since each ND was assigned the same positive value, the distributional spike in this adapted model was located not at zero, but at the minimum level. This adaptation is appropriate since it is known that the NDs are some value greater than zero. This adapted model was used in developing limitations for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF), Pesticides Manufacturing and Centralized Wasted Treatment rulemakings.

**Figure 4-2.**  
**Adapted Delta-lognormal Model**



In the adapted delta-lognormal model, the delta again referred to those measurements contained in the discrete spike, this time representing the proportion of ND values observed within the data set. By using this approach, computation of estimates for the population mean and variance could be done

easily by hand, and NDs were not assumed to follow the same distributional pattern as the detected measurements. The adapted delta-lognormal model can be expressed mathematically as follows:

$$Pr (U \leq u) = \begin{cases} (1-\delta) \Phi \left[ \frac{(\log(u) - \mu)}{\sigma} \right] & \text{if } 0 < u < D \\ \delta + (1-\delta) \Phi \left[ \frac{(\log(D) - \mu)}{\sigma} \right] & \text{if } u = D \\ \delta + (1-\delta) \Phi \left[ \frac{(\log(u) - \mu)}{\sigma} \right] & \text{if } u > D \end{cases} \quad (4.1)$$

where  $\delta$  represents the true proportion of NDs (or the probability that any randomly drawn measurement will be an ND),  $D$  equals the minimum level value of the discrete spike assigned to all NDs,  $\Phi$  represents the standard normal cumulative distribution function, and  $\mu$  and  $\sigma$  are the parameters of the lognormal density portion of the model. This model assumes that all non-detected values have a single detection limit  $D$ .

It is also possible to represent the adapted delta-lognormal model in another mathematical form, one in which it is particularly easy to derive formulas for the expected value and variance of the model. In this case, a random variable distributed according to the adapted delta-lognormal distribution can be represented as the stochastic combination of three other independent random variables. The first of these variables is an indicator variable,  $I_u$ , equal to one when the measurement  $u$  is an ND and equal to zero when  $u$  is a detected value. The second variable,  $X_D$ , represents the value of an ND measurement (discrete). In the adapted delta-lognormal, this variable is always a constant equal to the concentration value assigned to each ND (i.e., equal to  $D$  in the adapted delta-lognormal model). In general, however,  $X_D$  need not be a constant, as will be seen below in the modified delta-lognormal model. The final random variable,  $X_C$ , represents the value of a detected measurement and is distributed according to a lognormal distribution (continuous) with parameters  $\mu$  and  $\sigma$ .

Using this formulation, a random variable from the adapted delta-lognormal model can be written as

$$U = I_u X_D + (1-I_u)X_C \quad (4.2)$$

and the expected value of  $U$  is then derived by substituting the expected value of each quantity in the right-hand side of the equation. Because the variables  $I_u$ ,  $X_D$ , and  $X_C$  are mutually independent, this leads to the expression

$$E(U) = \delta E(X_D) + (1-\delta)E(X_C) = \delta D + (1-\delta)\exp(\mu + 0.5\sigma^2) \quad (4.3)$$

where again  $\delta$  is the probability that any random measurement will be ND and the exponentiated expression is the familiar mean of a lognormal distribution. In a similar fashion, the variance of the adapted delta-lognormal model can be established by squaring the expression for  $U$  above, taking expectations, and subtracting the square of  $E(U)$  to get

$$Var(U) = E(U^2) - [E(U)]^2 = \delta Var(X_D) + (1-\delta)Var(X_C) + \delta(1-\delta)[E(X_D) - E(X_C)]^2. \quad (4.4)$$

Since, in the adapted delta-lognormal formulation,  $X_D$  is a constant, this expression can be reduced to the following:

$$Var(U) = (1-\delta)\exp(2\mu + \sigma^2)[\exp(\sigma^2) - (1-\delta)] + \delta(1-\delta)D[D - 2\exp(\mu + 0.5\sigma^2)]. \quad (4.5)$$

In order to estimate the adapted delta-lognormal mean and variance from a set of observed sample measurements, it is necessary to derive sample estimates for the parameters  $\mu$ ,  $\sigma$ , and  $F$ .  $\mu$  is typically estimated by the observed proportion of NDs in the data set.  $\sigma$  and  $F$  are estimated using the log values of the detected samples where  $\sigma$  is estimated using the arithmetic mean of the log-detected measurements, and  $F$  is estimated using the standard deviation of these same log values; NDs are not included in the calculations. Once the parameter estimates are obtained, they are used in the formulas above to derive the estimated adapted delta-lognormal mean and variance.

To calculate effluent limitations and/or standards, it is also necessary to estimate upper percentiles from the underlying data model. Using the delta-lognormal formulation above in equation (4.1), letting  $U_\alpha$  represent the 100 $\alpha$ <sup>th</sup> percentile of random variable  $U$ , and adopting the standard notation of  $z_\alpha$  for the  $\alpha$ <sup>th</sup> percentile of the standard normal distribution, an arbitrary delta-lognormal percentile can be expressed as the following:

$$U_\alpha = \begin{cases} \exp(\mu + \sigma z_{\alpha/(1-\delta)}) & \text{if } (1-\delta)\Phi((\log(D)-\mu)/\sigma) \geq \alpha \\ D & \text{if } \delta + (1-\delta)\Phi((\log(D)-\mu)/\sigma) \geq \alpha \\ \exp(\mu + \sigma z_{\alpha-\delta/(1-\delta)}) & \text{if } \delta + (1-\delta)\Phi((\log(D)-\mu)/\sigma) < \alpha \end{cases} \quad (4.6)$$

The daily maximum limitations are established on the basis of an estimated upper 99<sup>th</sup> percentile from the underlying data model, so that 0.99 would be substituted for  $\alpha$  in the above expression. To derive the daily VF for the 99<sup>th</sup> percentile based on the adapted delta-lognormal model, divide  $U_{.99}$  in the expression above by the LTA

## 4.2 Motivations for Modifications to the Adapted Delta-Lognormal Model

While the adapted delta-lognormal model has been used successfully for years by EPA in a variety of settings, the model makes two key assumptions about the observed data that are not fully satisfied within the MP&M analytical database. First, the discrete spike portion of the adapted delta-lognormal model is a fixed, single-valued probability mass associated (typically) with all the ND measurements. If all ND samples in the MP&M database had roughly the same reported detection limit, this assumption would be adequately satisfied. However, the detection limits reported were sample-specific and, therefore, varied as a result of factors such as dilution. Because of this variation in detection limits, a single-valued discrete spike could not adequately represent the set of ND measurements observed in the MP&M database and a modification to the model was considered.

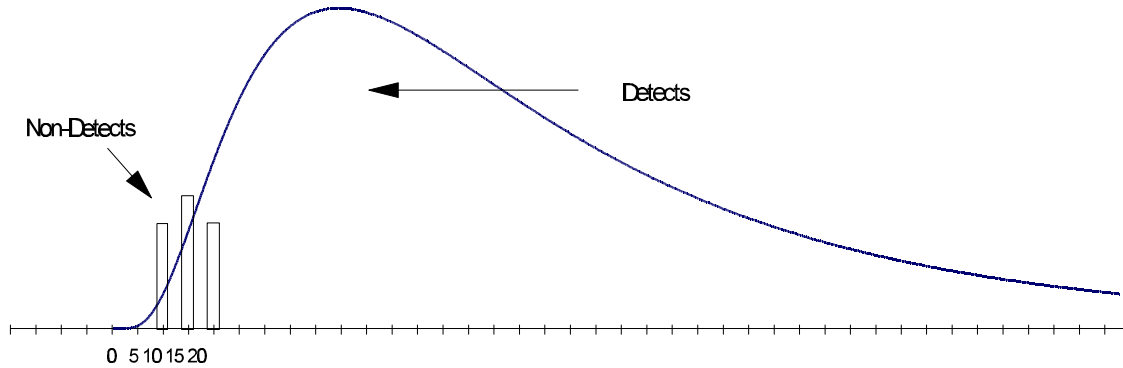
In addition, the adapted delta-lognormal model sets all NC values below the detection limit to the Minimum Level of the analytical method. For example, if the Minimum Level for N-Dodecane was 0.10 ug/l, then any NC samples reported below 0.10 ug/l were set to 0.10 ug/l. There were a few instances in the MP&M analytical studies where an NC value was reported below the Minimum Level of the analytical method.

### 4.2.1 Modification of the Discrete Spike

To appropriately modify the adapted delta-lognormal model for the observed MP&M database, a modification was made to the discrete, single-valued spike representing ND measurements. Because

ND samples have varying detection limits, the spike of the delta-lognormal model has been replaced by a discrete distribution made up of multiple spikes. Each spike in this modification is associated with a distinct detection limit observed in the MP&M database. Thus, instead of assigning all NDs to a single, fixed value, as in the adapted model, NDs can be associated with multiple values depending on how the detection limits vary (**Figure 4-3**).

**Figure 4-3.**  
**Modified Adapted Delta-lognormal Model**



In particular, because the detection limit associated with an ND sample is considered to be an upper bound on the true value, which could range conceivably from zero up to the detection limit, the modified delta-lognormal model used here assigns each ND sample to its reported detection limit.

Once each ND has been associated with its reported detection limit, the discrete “delta” portion of the modified model is estimated in a way similar to the adapted delta-lognormal distribution, only now multiple spikes are constructed and linked to the distinct detection limits observed in the data set. In the adapted model, the parameter  $\delta^*$  is estimated by computing the proportion of NDs. In the modified model,  $\delta^*$  again represents the proportion of NDs, but is divided into the sum of smaller fractions,  $\delta_i^*$ , each representing the proportion of NDs associated with a particular and distinct detection limit. Thus it can be written as

$$\delta^* = \sum_i (\delta_i^*) \tag{4.7}$$

If  $D_i$  equals the value of the  $i^{\text{th}}$  smallest distinct detection limit in the data set, and let the random variable  $X$  represent a randomly chosen ND sample, then the discrete distribution portion of the modified delta-lognormal model can be mathematically expressed as

$$Pr(X_D \leq x) = \sum_{i: D_i \leq x} \delta_i^* \tag{4.8}$$

The mean and variance of this discrete distribution can be calculated using the following formulas:

$$E(X_D) = \frac{1}{\delta} \sum_i \delta_i D_i \quad \text{and} \quad \text{Var}(X_D) = \frac{1}{\delta^2} \sum_i \sum_{i \neq j} \delta_i \delta_j (D_j - D_i)^2. \quad (4.9)$$

It is important to recognize that, while replacing the single discrete spike in the adapted delta-lognormal distribution with a more general discrete distribution of multiple spikes increases the complexity of the model, the discrete portion with multiple spikes plays a role in limitations and standards development identically parallel to the single spike case and offers flexibility for handling multiple observed detection limits.

**CHAPTER 5**  
**ESTIMATION UNDER THE MODIFIED DELTA-LOGNORMAL MODEL**

Once the modifications to the adapted delta-lognormal distribution are made, it is possible to fit a wide variety of observed effluent data sets to the modified model. Multiple detection limits for non-detects (NDs) can be handled. The same basic framework can be used even if there are no ND values or censored data.

Combining the discrete portion of the model with the continuous portion, the cumulative probability distribution of the modified delta-lognormal model can be expressed as follows, where  $D_k$  denotes the largest distinct detection limit observed among the NDs and the first summation is taken over all those values,  $D_i$ , that are less than  $u$ .

$$Pr(U \leq u) = \begin{cases} \sum_{i: D_i < u} \delta_i + (1 - \delta) \Phi \left[ \frac{(\log(u) - \mu)}{\sigma} \right] & \text{if } u < D_k \\ \delta + (1 - \delta) \Phi \left[ \frac{(\log(u) - \mu)}{\sigma} \right] & \text{if } u \geq D_k \end{cases} \quad (5.1)$$

Again combining the discrete and continuous portions of the modified model, the expected value of the random variable  $U$  can be derived as a weighted sum of the expected values of the discrete and continuous lognormal portions of the distribution. This follows because the modified delta-lognormal random variable  $U$  can be expressed again as a combination of three other independent variables, that is,

$$U = I_u X_D + (1 - I_u) X_C \quad (5.2)$$

where this time  $X_D$  represents a random ND from the discrete portion of the model,  $X_C$  represents a random detected measurement from the continuous lognormal portion, and  $I_u$  is an indicator variable signaling whether any particular random measurement is detected or not. Then the expected value and variance of  $U$  have forms somewhat similar to the adapted delta-lognormal model, namely

$$E(U) = \sum_i \delta_i D_i + (1 - \delta) \exp(\mu + 0.5 \sigma^2) \quad (5.3)$$

$$Var(U) = \frac{\sum_{i \neq j} \sum_j \delta_i \delta_j (D_i - D_j)^2}{\delta} + (1 - \delta) \exp(2\mu + \sigma^2) (\exp(\sigma^2) - 1) + \delta(1 - \delta) \left[ \frac{\sum_i \delta_i D_i}{\delta} - \exp(\mu + 0.5 \sigma^2) \right]^2 \quad (5.4)$$

where  
 $D_i$  = detection limit for the  $i^{\text{th}}$  ND value  
 $D_j$  = detection limit for the  $j^{\text{th}}$  ND value, where  $i < j$   
 $\delta_i$  = proportion of NDs with detection limit =  $D_i$

- \*<sub>j</sub> = proportion of NDs with detection limit = D<sub>j</sub>
- \* = proportion of all NDs
- : = mean log concentrations of non-censored (NC) values
- F = standard deviation of log NC values.

Example:

Consider a facility that has 10 samples with the following concentrations:

Sample number	Measurement Type	Concentration (mg/L)
1	ND	10
2	ND	15
3	ND	15
4	ND	20
5	NC	25
6	NC	25
7	NC	30
8	NC	35
9	NC	35
10	NC	40

Then the mean and variance of the log NC values are calculated as follows:

$$\mu = \frac{\sum_{i=1}^n \ln(x_i)}{n}$$

$$= \frac{(2 * \ln(25) + \ln(30) + 2 * \ln(35) + \ln(40))}{6} = 3.44$$

$$\sigma^2 = \frac{1}{n-1} \sum_{i=1}^n (\ln(x_i) - \mu)^2$$

$$= \frac{1}{5} (2 * (\ln(25) - 3.44)^2 + (\ln(30) - 3.44)^2 + 2 * (\ln(35) - 3.44)^2 + (\ln(40) - 3.44)^2) = .0376.$$

The ND components of the variance equation are:

$$D_1 = 10, \quad *_{1} = 1/10$$

$$D_2 = 15, \quad *_{2} = 1/5$$

$$D_3 = 20, \quad *_{3} = 1/10.$$

As such, the variance for this example is:

$$\text{Var}(x) = \frac{\frac{1}{10} * \frac{1}{5} (10-15)^2 + \frac{1}{10} * \frac{1}{10} (10-20)^2 + \frac{1}{5} * \frac{1}{10} (15-20)^2}{\frac{2}{5}} + \left(1 - \frac{2}{5}\right) \exp(2 * 3.44 + .0376)$$

$$(\exp(.0376) - 1) + \frac{2}{5} \left(1 - \frac{2}{5}\right) \left[ \frac{\left(\frac{1}{10} * 10\right) + \left(\frac{1}{5} * 15\right) + \left(\frac{1}{10} * 20\right)}{\frac{2}{5}} - \exp(3.44 + 0.5 * .0376) \right]^2 = 95.8.$$

## 5.1 Facility-Specific Estimates

For the purposes of estimating facility-specific LTAs and VFs, EPA chose to divide the MP&M data sets into two groups based on their size (number of samples) and the type of samples in the subset, because the computations differ for each group. The groups were defined as follows:

**Group 1:** Less than 2 NC (detectable) samples or less than 4 total samples. Specifically, Group 1 contained all data subsets with all NDs or only one detect. Sample-specific detection limits were substituted as the values associated with non-detectable samples.

**Group 2:** Two or more NC (detectable) samples and 4 or more total samples. Sample-specific detection limits were substituted as the values associated with non-detectable samples.

A listing of the daily data can be found in **Appendix A**.



### 5.1.1 Estimation of Facility-Specific LTAs

Data from both Group 1 and 2 were included for the computation of LTAs. The LTAs were calculated as the arithmetic average of the samples. **Appendix B** lists the summary statistics by subcategory, analyte, and option.

### 5.1.2 Estimation of Facility-Specific VFs

EPA developed 1-day and 4-day VFs for all regulated pollutants using Group 2 data only. Group 1 data were insufficient for estimating variability. Upper percentiles and VFs for Group 1 could not be computed using the modified delta-lognormal methodology.

For Group 2, the estimates of the parameters for the lognormal portion of the data were calculated using maximum likelihood estimation in the log-domain. Upper percentiles and VFs were calculated using these estimated parameters. Calculation of these VFs is described in Section 5.1.2.1 and 5.1.2.2.

#### 5.1.2.1 Estimation of Facility-Specific 1-day VFs

The 1-day VFs are a function of the LTA and the 99<sup>th</sup> percentile. The 99<sup>th</sup> percentile of each data subset was calculated using the modified delta-lognormal methodology by first defining  $D_0 = 0$ ,  $\delta_0 = 0$ , and  $D_{k+1} = 4$  as boundary conditions, where  $D_i$  equals the  $i^{\text{th}}$  smallest detection limit, and  $\delta_i$  is the associated proportion of NDs at the  $i^{\text{th}}$  detection limit. A cumulative distribution function,  $p$ , for each data subset was computed as a step function ranging from 0 to 1. The general form for  $p$ , for a given value  $c$ , is

$$p = \sum_{i=0}^m \delta_i + (1 - \delta) \Phi \left[ \frac{\log(c) - \hat{\mu}}{\hat{\sigma}} \right], \quad D_m \leq c < D_{m+1}, \quad m=0,1,\dots,k \quad (5.5)$$

where  $\Phi$  is the standard normal cumulative distribution function. The following steps were completed to compute the estimated 99<sup>th</sup> percentile of each data subset:

1.  $k$  values of  $p$  at  $c = D_m$ ,  $m = 1, \dots, k$  were computed and labeled  $p_m$ .
2. The smallest value of  $m$ , such that  $p_m \leq 0.99$ , was determined and labeled as  $p_j$ . If no such  $m$  existed, steps 3 and 4 were skipped and step 5 was computed instead.
3.  $p^* = p_j - \delta_j$  was computed.
4. If  $p^* < 0.99$ , then  $P_{99} = D_j$ ,  
else if  $p^* \geq 0.99$ , then

$$\hat{P}_{99} = \exp \left[ \hat{\mu} + \Phi^{-1} \left[ \frac{\left( 0.99 - \sum_{i=0}^{j-1} \delta_i \right)}{(1 - \delta)} \right] \hat{\sigma} \right] \quad (5.6)$$

5. If no such  $m$  exists, such that  $p_m \leq 0.99$  ( $m= 1, \dots, k$ ), then

$$\hat{P}_{99} = \exp \left[ \hat{\mu} + \Phi^{-1} \left[ \frac{0.99 - \hat{\delta}}{(1 - \hat{\delta})} \right] \hat{\sigma} \right]. \quad (5.7)$$

The daily VF, VF1, was then calculated as

$$VF1 = \frac{\hat{P}_{99}}{\hat{E}(U)} \quad (5.8)$$

where

$$\hat{E}(U) = \sum_i \hat{\delta}_i D_i + (1 - \hat{\delta}) \exp(\hat{\mu} + 0.5 \hat{\sigma}^2).$$

### 5.1.2.2 Estimation of Facility-Specific 4-day VFs

Since EPA is assuming for costing purposes that some of the pollutants will be monitored weekly (approximately four times a month), EPA calculated a VF for monthly averages based on the distribution of 4-day averages. In order to calculate the 4-day VF, the assumption was made that the approximating distribution of  $\hat{\mathbf{a}}_4$ , the sample mean for a random sample of four independent concentration values, also is derived from this modified delta-lognormal distribution, with the same mean as the distribution of the concentration values. The mean of this distribution of 4-day averages is

$$E(\bar{U}_4) = \delta_4 E(\bar{X}_4)_D + (1 - \delta_4) E(\bar{X}_4)_C \quad (5.9)$$

where  $E(\bar{X}_4)_D$  denotes the mean of the discrete portion of the distribution of the average of four independent concentration values (i.e., when all observations are not detected), and  $E(\bar{X}_4)_C$  denotes the mean of the continuous lognormal portion of the distribution.

First, it is assumed that the probability of detection ( $\delta$ ) on each of the four days is independent of that on the other days, and the non-detected values are therefore not correlated; consequently,  $\delta_4 = \delta^4$ . Also, because

$$E(\bar{X}_4)_D = E(X_D)$$

then

$$E(\bar{U}_4) = \delta^4 \sum_{i=1}^k \frac{\delta_i D_i}{\delta} + (1 - \delta^4) \exp(\mu_4 + 0.5 \sigma_4^2) \quad (5.10)$$

and since  $E(\hat{\mathbf{a}}_4) = E(U)$ , then

$$\mu_4 = \log \left[ \frac{E(U) - \delta^3 \sum_{i=1}^k \delta_i D_i}{(1 - \delta^4)} \right] - 0.5\sigma_4^2. \quad (5.11)$$

The expression for  $F_4^2$  was derived from the following relationship:

$$\text{Var}(\bar{U}_4) = \delta_4 \text{Var}((\bar{X}_4)_D) + (1 - \delta_4) \text{Var}((\bar{X}_4)_C) + \delta_4(1 - \delta_4)[E(\bar{X}_4)_D - E(\bar{X}_4)_C]^2. \quad (5.12)$$

Because

$$\text{Var}((\bar{X}_4)_D) = \frac{\text{Var}(X_D)}{4}, \quad E(\bar{X}_4)_D = E(X_D), \quad \text{and} \quad \delta_4 = \delta^4 \quad (5.13)$$

then

$$\text{Var}(\bar{U}_4) = \delta^4 \frac{\text{Var}(X_D)}{4} + (1 - \delta^4) \text{Var}((\bar{X}_4)_C) + \delta^4(1 - \delta^4)[E(X_D) - E(\bar{X}_4)_C]^2. \quad (5.14)$$

This further simplifies to

$$\begin{aligned} \text{Var}(\bar{U}_4) = & \frac{\delta^4 \sum_{i=1}^k \sum_{j=1}^k \delta_i \delta_j (D_i - D_j)^2}{4\delta^2} + (1 - \delta^4) \exp(2\mu_4 + \sigma_4^2) [\exp(\sigma_4^2) - 1] \\ & + \delta^4(1 - \delta^4) \left[ \sum_{i=1}^k \frac{\delta_i D_i}{\delta} - \exp(\mu_4 + 0.5\sigma_4^2) \right]^2 \end{aligned} \quad (5.15)$$

and furthermore,

$$\exp(\sigma_4^2) - 1 = \frac{\left[ \text{Var}(\bar{U}_4) - \frac{\delta^2 \sum_{i=1}^k \sum_{j=1}^k \delta_i \delta_j (D_i - D_j)^2}{4} - \delta^2(1 - \delta^4) \left[ \sum_{i=1}^k \delta_i D_i - \delta \exp(\mu_4 + 0.5\sigma_4^2) \right]^2 \right]}{(1 - \delta^4) \exp(2\mu_4 + \sigma_4^2)}. \quad (5.16)$$

Then, from (5.10) above,

$$\exp(\mu_4 + 0.5\sigma_4^2) = \frac{(E(\bar{U}_4) - \delta^3 \sum_{i=1}^k \delta_i D_i)}{(1 - \delta^4)} = \frac{(E(U) - \delta^3 \sum_{i=1}^k \delta_i D_i)}{(1 - \delta^4)}, \quad \because E(\bar{U}_4) = E(U) \quad (5.17)$$

and letting

$$\eta = E(U) - \delta^3 \sum_{i=1}^k \delta_i D_i, \quad \text{then, } \exp(\mu_4 + 0.5\sigma_4^2) = \frac{\eta}{(1 - \delta^4)}. \quad (5.18)$$

Furthermore,

$$\sigma_4^2 = \log \left[ 1 + \frac{\left[ \text{Var}(\bar{U}_4) - \frac{\delta^2 \sum_{i=1}^k \sum_{j=1}^k \delta_i \delta_j (D_i - D_j)^2}{4} - \delta^2 (1 - \delta^4) \left( \sum_{i=1}^k \delta_i D_i - \frac{\delta \eta}{(1 - \delta^4)} \right)^2 \right]}{(1 - \delta^4) \eta^2} \right]}{(1 - \delta^4)^2} \quad (5.19)$$

Since  $\text{Var}(\hat{\mathbf{a}}_4) = \text{Var}(U)/4$ , then, by rearranging terms,

$$\sigma_4^2 = \log \left[ 1 + \frac{(1 - \delta^4) \text{Var}(U)}{4\eta^2} - \frac{(1 - \delta^4) \delta^2 \sum_{i=1}^k \sum_{j=1}^k \delta_i \delta_j (D_i - D_j)^2}{4\eta^2} - \frac{\delta^2 \left[ \sum_{i=1}^k \delta_i D_i (1 - \delta^4) - \delta \eta \right]^2}{\eta^2} \right] \quad (5.20)$$

Thus, estimates of  $\hat{\delta}_4$  and  $\hat{F}_4$  were derived by using estimates of  $\delta_1^*, \dots, \delta_k^*$  (sample proportion of NDs at observed detection limits  $D_1, \dots, D_k$ ),  $\hat{\delta}$  (MLE of logged values), and  $\hat{F}^2$  (MLE logvariance multiplied by  $\frac{n}{n-1}$  to reflect estimation from sample) in the equations above.

In finding the estimated 95<sup>th</sup> percentile of the average of four observations, four NDs, not all at the same detection limit, an average can be generated that is not necessarily equal to  $D_1, D_2, \dots$ , or  $D_k$ . Consequently, more than  $k$  discrete points exist in the distribution of the 4-day averages. For example, the average of four NDs at  $k=2$  detection limits are at the following discrete points with the associated probabilities:

$i$	$D_i^*$	$\delta_i^*$
1	$D_1$	$\delta_1^4$
2	$(3D_1 + D_2)/4$	$4\delta_1^3\delta_2$
3	$(2D_1 + 2D_2)/4$	$6\delta_1^2\delta_2^2$
4	$(D_1 + 3D_2)/4$	$4\delta_1\delta_2^3$
5	$D_2$	$\delta_2^4$

In general, when all four observations are not detected, and when  $k$  detection limits exist, the multinomial distribution can be used to determine associated probabilities; that is,

$$Pr \left[ \bar{U}_4 = \frac{\sum_{i=1}^k u_i D_i}{4} \right] = \frac{4!}{u_1! u_2! \dots u_k!} \prod_{i=1}^k \delta_i^{u_i}. \quad (5.21)$$

where  $u_i$  is the number of non-detected measurement in the data set with the  $D_i$  detection limit. The number of possible discrete points,  $k^*$ , for  $k=1,2,3,4$ , and 5 are given below:

$k$	$k^*$
1	1
2	5
3	15
4	35
5	70

To find the estimated 95<sup>th</sup> percentile of the distribution of the average of four observations, the same basic steps (described in Section 5.1.2.1) as used for the 99<sup>th</sup> percentile of the distribution of daily observations were followed, with the following changes:

1. Change  $P_{99}$  to  $P_{95}$ , and 0.99 to 0.95.
2. Change  $D_m$  to  $D_m^*$ , the weighted averages of the detection limits.
3. Change  $^*_{i}$  to  $^*_{i^*}$ .
4. Change  $k$  to  $k^*$ , the number of possible discrete points based on  $k$  detection limits.
5. Change the estimates of  $^*$ ,  $;$ , and  $F$  to estimates of  $^*_{4}$ ,  $;$ , and  $F_{4}$ , respectively.

Then, the estimate of the 95<sup>th</sup> percentile 4-day mean VF is:

$$VF4 = \frac{\hat{P}_{95}}{\hat{E}(U)}, \quad \because E(\bar{U}_4) = E(U).$$

**Appendix C** displays facility-level LTAs, 1-day VFs, and 4-day VFs by subcategory, analyte, and option.

## 5.2 Pollutant-Specific Estimates

### 5.2.1 Estimation of Pollutant-Specific LTAs

After estimating the facility-specific LTAs for each pollutant and option by subcategory, as described in section 5.1.1, pollutant-specific LTAs were calculated. Pollutant-specific LTAs provide one number for all facilities within a subcategory and option. Within each subcategory and option combination, the pollutant-specific LTAs were calculated as the median of the facility-specific LTAs for that pollutant. The median is the midpoint of the values ordered (i.e., ranked) from smallest to largest. If there is an

odd number of values (with n= number of values), then the value of the (n+ 1)/2 ordered observation is the median. If there is an even number of values, then the two values of the n/2 and [(n/2)+ 1] ordered observations are arithmetically averaged to obtain the median value.

## 5.2.2 Estimation of Pollutant-Specific VFs

Pollutant-specific VFs, the ratio of the 99<sup>th</sup> percentile to the mean, provide estimates of the average variability across facilities.

### 5.2.2.1 Estimation of Pollutant-Specific 1-day VFs

Facility-specific VFs were estimated for each pollutant by technology option and subcategory, as described in section 5.1.2.1. A pollutant-specific 1-day VF was the mean of the facility-specific daily VFs for that pollutant in the subcategory and option combination.

### 5.2.2.2 Estimation of Pollutant-Specific 4-day VFs

Facility-specific 4-day VFs were estimated for each pollutant by technology option and subcategory, as described in section 5.1.2.2. A pollutant-specific 4-day VF was the mean of the facility-specific 4-day VFs for that pollutant in the subcategory and option combination. The pollutant-specific 4-day VFs were used to calculate 4-day limitations, as discussed in Chapter 6.

**Appendix D** displays pollutant-specific LTAs, 1-day VFs, and 4-day VFs by subcategory, analyte, and option.

## 5.3 Transfers

A transfer occurs when all data from the original subcategory are combined with all data from the specified transfer subcategory or when there are no data from the original subcategory so it is necessary to use, or transfer, data from another subcategory. Limits are then calculated using these combined data. In most cases, EPA applies transfers when there are insufficient data in a particular subcategory for the calculation of an LTA or VF. However, in certain cases, EPA applies data transfers even when sufficient data are available to calculate the limit for the specific pollutant within the original subcategory. **Table 5-1** lists the transfers applied to the MP&M data by subcategory, analyte, and option.

**Table 5-1.  
Transfers**

Target Subcat	Target Chemical	Option	Data Used for Limits	
			LTA	VF
ANO	MANGANESE	2	GENL	GENL
	NICKEL	2	GENL	GENL
	OIL AND GREASE (AS HEM)	2	GENL	GENL

Target Subcat	Target Chemical	Option	Data Used for Limits	
			LTA	VF
	ZINC	2	GENL	GENL
GENL	AMENABLE CYANIDE		GENL,MFJ	GENL,MFJ
	CYANIDE		GENL,MFJ,DRYD	GENL,MFJ,DRYD
	LEAD	4	PWB (option 4)	PWB (option 4)
	MOLYBDENUM	4	GENL (option 2)	GENL (option 2)
	OIL AND GREASE (AS HEM)	4	GENL (option 2)	GENL (option 2)
	TIN	2	GENL	GENL
		4	GENL	GENL,PWB
	TOTAL SULFIDE	2	OILY	OILY
		4	OILY	OILY
	TOTAL ORGANIC CARBON (TOC)	4	GENL (option 2)	GENL (option 2)
	TOP	2	DRYD,GENL,MFJ, OILY,PWB,RRL	DRYD,GENL,MFJ, OILY,PWB,RRL
		4	DRYD,GENL,MFJ, OILY,PWB,RRL (option 2)	DRYD,GENL,MFJ, OILY,PWB,RRL (option 2)
	MFJ	AMENABLE CYANIDE		GENL,MFJ
CADMIUM		4	GENL	GENL
CHROMIUM		4	GENL	GENL
COPPER		4	GENL	GENL
CYANIDE			GENL,MFJ,DRYD	GENL,MFJ,DRYD
LEAD		4	PWB (option 4)	PWB (option 4)
MANGANESE		4	GENL	GENL
MOLYBDENUM		2	GENL	GENL
		4	GENL (option 2)	GENL (option 2)
NICKEL		4	GENL	GENL

Target Subcat	Target Chemical	Option	Data Used for Limits	
			LTA	VF
	OIL AND GREASE (AS HEM)	2	GENL	GENL
		4	GENL (option 2)	GENL (option 2)
	SILVER	4	GENL	GENL
	TIN	4	GENL	GENL,PWB
	TOTAL ORGANIC CARBON (TOC)	4	MFJ (option 2)	MFJ (option 2)
	TOTAL SULFIDE	2	OILY	OILY
		4	OILY	OILY
	TOTAL SUSPENDED SOLIDS	4	GENL	GENL
	TOP	2	DRYD,GENL,MFJ, OILY,PWB,RRL	DRYD,GENL,MFJ, OILY,PWB,RRL
		4	DRYD,GENL,MFJ, OILY,PWB,RRL (option 2)	DRYD,GENL,MFJ, OILY,PWB,RRL (option 2)
ZINC	4	GENL	GENL	
OILY	TOP	6	DRYD,GENL,MFJ, OILY,PWB,RRL	DRYD,GENL,MFJ, OILY,PWB,RRL
PWB	AMENABLE CYANIDE		GENL,MFJ	GENL,MFJ
	CHROMIUM	2	GENL	GENL
		4	GENL	GENL
	COPPER	2	GENL	GENL
		4	PWB	PWB (Tin)
	CYANIDE		GENL,MFJ,DRYD	GENL,MFJ,DRYD
	LEAD	2	GENL	GENL
		4	PWB	PWB (Tin)
	OIL AND GREASE (AS HEM)	2	GENL	GENL
		4	GENL (option 2)	GENL (option 2)
MANGANESE	4	GENL (option 4)	GENL (option 4)	



Target Subcat	Target Chemical	Option	Data Used for Limits		
			LTA	VF	
	NICKEL	4	GENL (option 4)	GENL (option 4)	
	TOTAL ORGANIC CARBON (TOC)	4	PWB (option 2)	PWB (option 2)	
	TOTAL SULFIDE	2	OILY	OILY	
		4	OILY	OILY	
	TOTAL SUSPENDED SOLIDS	2	GENL	GENL	
		4	GENL	GENL	
	TOP	2	DRYD, GENL, MFJ, OILY, PWB, RRL	DRYD, GENL, MFJ, OILY, PWB, RRL	
		4	DRYD, GENL, MFJ, OILY, PWB, RRL (option 2)	DRYD, GENL, MFJ, OILY, PWB, RRL (option 2)	
	ZINC	2	GENL	GENL	
		4	GENL	GENL	
	RRL	BOD 5-DAY (CARBONACEOUS)	10	RRL	DRYD, RRL
		OIL AND GREASE (AS HEM)	10	RRL	DRYD, RRL
TOTAL SUSPENDED SOLIDS		10	RRL	DRYD, RRL	

## **CHAPTER 6 DERIVATION OF THE PROPOSED LIMITATIONS**

This chapter describes the derivation of the proposed daily and monthly limitations. Limits were calculated as the product of a model long-term average and a model variability factor (VF). This chapter describes the methods used to derive the proposed daily and monthly concentration-based limitations.

### **6.1 Steps Used to Derive Concentration-Based Limitations**

The derivation of the concentration-based daily and monthly maximum limitations used the pollutant-specific LTAs and respective VFs.

The following steps were used to derive the concentration-based limitations. **Appendix E** provides, by option and subcategory, listings of the concentration-based pollutant-level limitations with the LTAs and VFs used to derive the proposed limitations.

- Step 1: The facility-specific LTAs and 1-day and 4-day VFs were calculated for all facilities. Calculation of VFs was performed when the facility had four or more observations with two or more distinct detected values.
- Step 2: For each option in the subcategory, the median of the facility-specific LTAs and the mean of the facility-specific 1-day and 4-day VFs were calculated to provide pollutant-specific LTAs and 1-day and 4-day VFs.
- Step 3: The daily limitations for a pollutant were calculated using the product of the pollutant-specific LTA and the pollutant-specific 1-day VF. Monthly average limitations were calculated using the product of the pollutant-specific LTA and the pollutant-specific 4-day VF.

### **6.2 Proposed Limitations**

#### **6.2.1 Daily Concentration-Based Limitations**

For each technology option and subcategory, pollutant-specific daily maximum concentration-based limitations were calculated as the product of the pollutant-specific daily long-term average and the pollutant-specific daily variability factor.

#### **6.2.2 Monthly Concentration-Based Limitations**

For each technology option and subcategory, monthly or 4-day pollutant-specific daily maximum concentration-based limitations were calculated as the product of the pollutant-specific daily long-term average and the pollutant-specific 4-day variability factor.

### 6.3 Total Organics Parameter (TOP)

EPA defined a Total Organics Parameter (TOP) as the sum of all quantifiable concentration values greater than the nominal quantitation value of the organic pollutants. **Table 6-1** below lists the components of TOP and their nominal quantitation limits.

**Table 6-1.**  
**Calculation of Total Organics Parameter (TOP) Limit**

Total Organic Parameter Pollutants that are also POCs	CAS Number	Nominal Quantitation Limit (mg/L)	Pollutant has data in the LTA database for Option 2
Acrolein	107-02-8	0.05	
Benzoic acid	65-85-0	0.05	x*
Carbon disulfide	75-15-0	0.01	x
Dibenzofuran	132-64-9	0.01	
Dibenzothiophene	132-65-0	0.01	x
Isophorone	78-59-1	0.01	
n-Hexadecane	544-76-3	0.01	x
n-Tetradecane	929-59-4	0.01	x
Aniline	62-53-3	0.01	
Chloroform (trichloromethane)	67-66-3	0.01	x
Methylene chloride (dichloromethane)	75-09-2	0.01	
Chloroethane (ethyl chloride)	75-00-3	0.05	
1,1-Dichloroethane	75-34-3	0.01	
1,1,1-Trichloroethane (methylchloroform)	71-55-6	0.01	
1,1-Dichloroethylene (vinylidene chloride)	75-35-4	0.01	x
Tetrachloroethylene (perchloroethylene)	127-18-4	0.01	
Trichloroethylene	79-01-6	0.01	
Biphenyl	92-52-4	0.01	x
<i>p</i> -Cymene	99-87-6	0.01	x
Ethylbenzene	100-41-4	0.01	x
Toluene	108-88-3	0.01	x
N-Nitrosodimethylamine	62-75-9	0.05	
N-Nitrosodiphenylamine	86-30-6	0.02	
Chlorobenzene	108-90-7	0.01	
2,6-Dinitrotoluene	606-20-2	0.01	

Total Organic Parameter Pollutants that are also POCs	CAS Number	Nominal Quantitation Limit (mg/L)	Pollutant has data in the LTA database for Option 2
Phenol	108-95-2	0.01	
4-Chloro- <i>m</i> -cresol ( <i>parachlorometacresol</i> or 4-chloro-3- methylphenol)	59-50-7	0.01	x
2,4-Dinitrophenol	51-28-5	0.05	
2,4-Dimethylphenol	105-67-9	0.01	
2-Nitrophenol ( <i>o</i> -nitrophenol)	88-75-5	0.02	
4-Nitrophenol ( <i>p</i> -nitrophenol)	100-02-7	0.05	
Acenaphthene	83-32-9	0.01	x
Anthracene	120-12-7	0.01	
3,6-Dimethylphenanthrene	1576-67-6	0.01	x
Fluorene	86-73-7	0.01	x
Fluoranthene	206-44-0	0.01	
2-Isopropyl-naphthalene	2027-17-0	0.01	x
1-Methylfluorene	1730-37-6	0.01	x
2-Methylnaphthalene	91-57-6	0.01	x
1-Methylphenanthrene	832-69-9	0.01	x
Naphthalene	91-20-3	0.01	x
Phenanthrene	85-01-8	0.01	x
Pyrene	129-00-0	0.01	x
Benzyl butyl phthalate	85-68-7	0.01	
Dimethyl phthalate	131-11-3	0.01	
Di- <i>n</i> -butyl phthalate	84-74-2	0.01	
Di- <i>n</i> -octyl phthalate	117-84-0	0.01	
Di(2-ethylhexyl) phthalate	117-81-7	0.01	x
Sum of nominal quantitation limits for pollutants that are not in the LTA database			0.47

\* x indicates that the pollutant has data in the LTA database for Option 2.

EPA used the following steps to calculate the limit for TOP:

- Determine the LTA for each organic component.
- Sum the component LTAs.
- Multiply the total LTA by the mean VF across the individual organics.
- Add in the sum of nominal quantitation limits for pollutants that are not in the LTA database.

#### 6.4 Production-based Limits for Steel Forming and Finishing

EPA calculated production-based limits for the Steel Forming and Finishing subcategory as follows:

$$Limit_{pm} = \frac{Xmg}{L} \times \frac{Ygal}{short\ ton} \times \frac{8.3454 L \times lb}{10^6 gal \times mg} \times \frac{short\ ton}{2 \times 1000 lb} = 0.00000417 XY \frac{lb}{1000 lb} = 0.00000417 XY \frac{kg}{kkg}$$

where X is the concentration-based limit in mg/L and Y is the production value in gallons per ton. The production-based limits for Steel Forming and Finishing are listed in **Appendix F**.

## CHAPTER 7 GLOSSARY OF TERMS

**Censored value**: a measurement value known to be in a certain range but for which the exact value is unknown (or deliberately ignored).

**Daily maximum limit**: daily effluent discharge limit on the amount of pollutant that may be discharged in a single day. In calculating this limit, EPA uses statistical methodologies that account for reasonable excursions from the long-term average in a well-designed and operated treatment system. Numerically, for MP&M, the daily maximum is usually estimated as the product of the pollutant-specific LTA and the pollutant-specific daily Variability Factor (one-day VF).

**Detection limit**: the sample-specific value representing the lowest concentration that can be reliably distinguished from zero.

**Expected value**: the expected value of a function of variate values is its mean value in repeated sampling.<sup>2</sup>

**Facility-specific Long-Term Average**: average treated pollutant levels achieved over a period of time by the facility. For MP&M, the facility-specific LTA is usually computed as the arithmetic mean of all individual pollutant measurements in a given facility.

**Facility-specific Variability Factor**: a ratio that expresses the relationship between the average treatment performance level from the facility and an upper bound on large values that would be expected to occur only on rare occasions in a well-designed and operated treatment system.

**Field Duplicates**: one or more samples collected for a particular sampling point at the same time, or approximately the same time, assigned different sample numbers, and flagged as duplicate for a single episode number.

**Four-day Variability Factor**: a four-day average of the facility-specific or pollutant-specific variability factors.

**Grab samples**: one or more samples collected for a particular sampling point over time, assigned different sample numbers, and not physically composited.

**Limitation**: any restriction, including schedules of compliance, established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean. (CWA Sections 301(b) and 304(b).)

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<sup>2</sup> Kendall, M.G., and W.R. Buckland, 1982. A Dictionary of Statistical Terms. 4<sup>th</sup> Edition. Longman Group Ltd. New York; 213 p.

**Lognormal distribution:** a distribution whose set of values in logarithmic scale follow a mathematical function known as the normal distribution. The lognormal distribution is often appropriate for modeling environmental data.

**LTA:** Long-term average. For purposes of the effluent guidelines, average pollutant levels achieved over a period of time by a facility, subcategory, or technology option. LTAs are used in developing the limitations and standards in a proposed or final regulation.

**Minimum level:** the lowest concentration that can be reliably measured by the analytical method.

**MLE:** Maximum Likelihood Estimate. The value of an estimate of a population parameter that maximizes the likelihood of the sample.

**Monthly average limit:** monthly effluent discharge limit on the amount of pollutant that may be discharged on average during a month period. In calculating this limit, EPA uses statistical methodologies that account for reasonable excursions from the long-term average in a well-designed and operated treatment system. Numerically, for MP&M, the monthly average limit is usually estimated as the product of the pollutant-specific LTA and the pollutant-specific monthly Variability Factor (four-day VF).

**Mutually independent:** two events are independent if the probability of one is not affected by the occurrence of the other.

**Non-censored (NC):** a measurement result reported as a numerical value.

**Non-detect (ND):** samples below the level that can be reliably measured by the analytical method. This is also known, in statistical terms, as left-censored; i.e., value having an upper bound at the sample-specific detection limit and a lower bound at zero.

**One-day Variability Factor:** daily average of the facility-specific or pollutant-specific variability factors.

**Parameter:** Numerical descriptive values that characterize populations of measurements; e.g., a population mean value.

**Pollutant-specific Long-Term Average:** average pollutant levels achieved by the facility. For MP&M, the pollutant-specific LTA is computed as the median of the facility-specific LTAs.

**Pollutant-specific Variability Factor:** expresses the relationship between the average pollutant level and an upper bound on large pollutant values that would be expected to occur only on rare occasions in a well-designed and operated treatment system. In mathematical terms, for MP&M this is the median of the facility-specific variability factors for that pollutant.

**Right-censored (RC):** samples qualified with a greater than (>) sign, signifying that the reported value is considered a lower limit of the actual concentration.

**Single-valued probability mass**: a statistical term sometimes used to describe the magnitude of a probability or the relative frequency of observations located at a particular variate value, as distinct from being distributed over a mathematically continuous range.

**Variability Factor**: used in calculating a limitation (or standard) to allow for reasonable, normal variation in pollutant concentrations when processed through well designed and operated treatment systems. Variability factors account for normal fluctuations in treatment. By accounting for these reasonable excursions about the long-term average, EPA's use of variability factors results in limitations that are generally well above the actual long-term averages.

**Weighted sum**: a sum of quantities to which have been attached a series of weights in order to make proper allowance for their relative importance.<sup>1</sup>

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<sup>1</sup> Kendall, M.G., and W.R. Buckland. 1982. *A Dictionary of Statistical terms. 4<sup>th</sup> Edition.* Longman Group Ltd. New York; 213 p.



## **LIST OF ABBREVIATIONS AND ACRONYMS**

**ANO:** Non-Chromium Anodizers

**CN:** Cyanide

**DRYD:** Shipbuilding Dry Dock

**GENL:** General Metals

**LTA:** Long-term average

**MFJ:** Metal Finishing Job Shops

**NC:** Non-censored

**ND:** Non-detect

**OILY:** Oily Only

**PWB:** Printed Wiring Board

**RC:** Right-censored

**RRL:** Railroad Line Maintenance

**SFF:** Steel Forming and Finishing

**VF:** Variability Factor

## Table of Direct and Indirect Episodes

Episode	Discharge Status
1197A	Indirect
4011	Indirect
4079	Indirect
4274	Indirect
4277	Indirect
4278	Indirect
4279	Indirect
4310	Indirect
4330	Indirect
4384	Indirect
4415	Indirect
4417	Indirect
4438	Indirect
4460	Indirect
4460A	Indirect
4470	Indirect
4471	Direct
4737	Direct
4761	Indirect
4762	Indirect
4788	Indirect
4805	Direct
4806	Indirect
4807	Direct
4811	Indirect
4817	Indirect
4828	Indirect
4833	Direct
4834	Indirect
4847	Indirect
4851	Indirect
4854	Indirect
4855	Indirect
4856	Indirect
4866	Indirect
4867	Indirect
4869	Indirect
4871	Indirect
4872	Indirect
4876	Indirect
4877	Indirect
4882	Indirect
4883	Indirect
4891	Indirect
4892	Indirect
4893	Indirect
4894	Indirect
4904	Indirect
6048	Indirect
6178	Indirect
6179	Indirect
6186	Indirect
6187	Indirect

Episodes 4833 and 4807 are Direct for Option 2 only

## Appendix A. Daily Effluent Data Listing

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
ANO	ALUMINUM	7429905	Existing	4856	1	NC	3.40000
				4856	2	NC	2.91000
				4856	3	NC	2.23000
				4856	4	NC	3.04000
				4856	5	NC	5.29000
				4869	1	NC	1.08050
				4869	2	NC	0.64300
				4869	3	NC	1.14000
				4869	4	NC	4.65000
				4869	5	NC	0.80400
ANO	TOTAL SUSPENDED SOLIDS	C009	Existing	4856	1	NC	6.00000
				4856	2	NC	6.00000
				4856	3	NC	8.00000
				4856	4	NC	11.00000
				4856	5	NC	7.00000
				4869	1	ND	4.00000
				4869	2	NC	12.00000
				4869	3	NC	10.00000
				4869	4	NC	52.00000
				4869	5	ND	4.00000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
DRYD	BOD 5-DAY (CARBONACEOU	C003	Existing	4805	1	NC	36.00000				
				4805	2	NC	6.00000				
				4891	1	NC	136.00000				
				4891	2	NC	107.00000				
				4891	3	NC	1000.00000				
				4891	4	NC	62.30000				
				4891	5	NC	96.60000				
				4892	1	NC	60.00000				
				4892	2	NC	15.50000				
				4892	3	NC	29.50000				
				4892	4	NC	25.00000				
				4892	5	NC	192.00000				
				DRYD	OIL AND GREASE (AS HEM	C036	Existing	4891	1	ND	5.50000
								4891	2	ND	5.35000
								4891	3	ND	5.60000
4891	4	NC	8.35000								
4891	5	NC	6.30000								
4892	1	NC	9.33333								
4892	2	NC	8.50000								
4892	3	NC	12.00000								
4892	4	NC	11.75000								
4892	5	NC	17.25000								
DRYD	TOTAL SUSPENDED SOLIDS	C009	Existing	4805	1	NC	38.00000				
				4805	2	NC	21.00000				
				4891	1	NC	7.00000				
				4891	2	NC	5.00000				
				4891	3	NC	18.00000				
				4891	4	NC	11.00000				
				4891	5	NC	17.00000				
				4892	1	NC	37.50000				
				4892	2	NC	41.00000				
				4892	3	NC	44.50000				
				4892	4	NC	50.00000				
				4892	5	NC	102.00000				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
GENL	*1,1-DICHLOROETHYLENE	75354	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	ND	0.00999
				4737	5	ND	0.00999
GENL	*1-METHYLFLUORENE	1730376	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*1-METHYLPHENANTHRENE	832699	Existing	4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
GENL	*2-ISOPROPYLNAPHTHALEN	2027170	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*2-METHYLNAPHTHALENE	91576	Existing	4851	1	NC	0.06875
				4851	2	NC	0.04608
				4851	3	NC	0.03667
				4851	4	NC	0.03700
				4851	5	NC	0.05469
				6179	1	ND	0.01000
				6179	2	ND	0.01000
GENL	*3,6-DIMETHYLPHENANTHR	1576676	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*4-CHLORO-M-CRESOL	59507	Existing	4876	1	NC	0.10140
				4876	2	NC	1.30840
				4876	3	NC	0.32870
				4876	4	NC	0.16936
				4876	5	NC	0.72259
GENL	*ACENAPHTHENE	83329	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*BENZOIC ACID	65850	Existing	4817	1	NC	0.84886
				4817	2	NC	0.11222
				4817	3	ND	0.05000
				4817	4	NC	0.19099
GENL	*BIPHENYL	92524	Existing	4851	1	ND	0.00999
				4851	2	NC	0.01278
				4851	3	NC	0.01399
				4851	4	NC	0.01522
				4851	5	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
GENL	*BIS(2-ETHYLHEXYL) PHT	117817	Existing	4471	1	NC	0.13031
				4471	2	NC	0.05682
				4471	3	NC	0.13764
				4471	4	NC	0.10484
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
GENL	*CARBON DISULFIDE	75150	Existing	4867	1	NC	0.25949
				4867	2	NC	0.68949
				4867	3	NC	0.27099
				4867	4	NC	1.28000
				4867	5	NC	1.24000
GENL	*CHLOROFORM	67663	Existing	4788	1	NC	0.16350
				4788	2	NC	0.21344
				4788	3	NC	0.21115
GENL	*DIBENZOTHIOPHENE	132650	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*ETHYLBENZENE	100414	Existing	4851	1	NC	0.01164
				4851	2	ND	0.00999
				4851	3	ND	0.00999
				4851	4	ND	0.00999
				4851	5	ND	0.00999
GENL	*FLUORENE	86737	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*N-HEXADECANE	544763	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	NC	0.01615
				4851	5	ND	0.00999
				4872	1	NC	0.01632
				4872	2	ND	0.00999
				4872	3	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
GENL	*N-HEXADECANE	544763	Existing	4876	5	ND	0.00999
				4877	1	ND	0.00999
				4877	2	NC	0.01495
				4877	3	ND	0.00999
				4877	4	ND	0.00999
				4877	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
GENL	*N-TETRADECANE	929594	Existing	4471	1	NC	0.02350
				4471	2	ND	0.00999
				4471	3	NC	0.01591
				4471	4	NC	0.05649
				4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	NC	0.03607
				4851	2	NC	0.01174
				4851	3	ND	0.01059
				4851	4	NC	0.02707
				4851	5	NC	0.01386
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				4892	1	ND	0.01000
				4892	2	ND	0.01000
				4892	3	NC	0.01399
				4892	4	ND	0.01000
				4892	5	NC	0.04196
				6179	1	ND	0.01000
6179	2	ND	0.01000				
6179	3	ND	0.01000				
GENL	*NAPHTHALENE	91203	Existing	4851	1	NC	0.03893
				4851	2	NC	0.03491
				4851	3	NC	0.03582
				4851	4	NC	0.05329
				4851	5	NC	0.06996
GENL	*P-CYMENE	99876	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*PHENANTHRENE	85018	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
6179	3	ND	0.01000				
GENL	*PYRENE	129000	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
GENL	*PYRENE	129000	Existing	4851	4	ND	0.01075
				4851	5	ND	0.00999
GENL	*TOLUENE	108883	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	NC	1.17472
				4737	5	NC	0.69257
				4851	1	NC	0.03442
				4851	2	NC	0.01968
				4851	3	NC	0.01872
				4851	4	NC	0.01603
				4851	5	NC	0.01840
				GENL	AMENABLE CYANIDE	C025	
4807	2	ND	0.01999				
4807	3	ND	0.01999				
4807	4	ND	0.01999				
4807	5	ND	0.01999				
4817	1	NC	0.57499				
4817	2	NC	0.81000				
4817	3	ND	0.20000				
4817	4	NC	0.57999				
4828	1	NC	0.03500				
4828	2	NC	0.15999				
4828	3	NC	0.06300				
4828	4	NC	0.03799				
4828	5	NC	0.02400				
4834	1	ND	0.01999				
4834	2	ND	0.01999				
4834	3	ND	0.01999				
4834	4	ND	0.01999				
4834	5	ND	0.01999				
4847	2	ND	0.00999				
4847	3	NC	0.01049				
4847	4	ND	0.00999				
4847	5	ND	0.00999				
4904	1	NC	0.16249				
4904	2	NC	0.07349				
4904	3	NC	0.14300				
4904	4	NC	0.13400				
4904	5	NC	0.08200				
6048	1	NC	0.01999				
6048	2	NC	0.03700				
6048	3	ND	0.00499				
6048	4	ND	0.00499				
6048	5	NC	0.01400				
6186	1	NC	0.04899				
6186	2	NC	0.02250				
6186	3	NC	0.01750				
6186	4	NC	0.10999				
6186	5	NC	0.10999				
GENL	CADMIUM	7440439	Existing	1197A	2	NC	0.07999
				1197A	3	NC	0.06100
				4277	1	NC	0.23000
				4277	2	NC	0.20200
				4277	3	NC	0.07789
				4277	4	NC	0.14000
				4277	5	NC	0.21899
				4415	2	ND	0.00499
				4415	3	ND	0.00499
				4415	4	NC	0.00549
				4460	1	NC	0.02060



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	CADMIUM	7440439	Existing	4460	2	NC	0.04919				
				4460	3	NC	0.03500				
				6048	1	NC	0.85699				
				6048	2	NC	1.09000				
				6048	3	NC	0.94199				
				6048	4	NC	0.76499				
				6048	5	NC	0.80099				
				New	4882	1	NC	0.00725			
					4882	2	ND	0.00500			
					4882	3	NC	0.00560			
					4882	4	NC	0.00730			
					4882	5	NC	0.01020			
				GENL	CHROMIUM	7440473	Existing	1197A	2	NC	0.02700
								1197A	2	NC	0.65600
								1197A	3	NC	1.23000
4011	1	NC	0.75599								
4011	2	NC	0.72600								
4011	3	NC	1.13000								
4079	1	NC	0.63499								
4079	2	NC	1.82000								
4079	3	NC	0.45600								
4310	2	NC	0.39500								
4310	3	NC	1.77000								
4310	4	NC	4.65000								
4330	1	NC	0.06599								
4330	2	NC	0.13112								
4330	3	NC	0.04343								
4330	4	NC	0.05015								
4330	5	NC	0.04301								
4384	1	NC	0.60299								
4384	2	NC	0.78549								
4384	3	NC	0.53200								
4384	4	NC	0.59299								
4384	5	NC	0.41100								
4415	2	NC	0.01480								
4415	3	NC	0.01960								
4415	4	NC	0.11200								
4417	1	NC	0.01989								
4417	2	NC	0.01329								
4417	3	NC	0.02920								
4417	4	NC	0.00980								
4417	5	NC	0.02160								
4438	1	NC	0.09899								
4438	4	NC	0.09099								
4438	5	NC	0.08799								
4460	1	NC	1.33000								
4460	2	NC	1.21000								
4460	3	NC	0.98400								
4470	1	NC	0.10832								
4470	2	NC	0.06859								
4470	3	NC	0.05547								
4470	4	NC	0.08252								
4470	5	NC	0.07164								
4811	1	ND	0.00800								
4811	2	ND	0.00800								
4811	3	NC	0.00965								
4811	4	NC	0.00910								
4811	5	ND	0.00800								
4817	1	NC	0.05759								
4817	2	NC	0.03144								
4817	3	NC	0.08049								
4817	4	NC	0.02170								

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	CHROMIUM	7440473	Existing	4817	5	NC	0.27149				
				4833	1	NC	0.03689				
				4833	2	NC	0.02814				
				4833	3	NC	0.06750				
				4833	4	NC	0.08910				
				4833	5	NC	0.11800				
				4847	1	NC	0.37999				
				4847	2	NC	0.20100				
				4847	3	NC	0.19400				
				4847	4	NC	0.18999				
				4847	5	NC	0.54299				
				4871	1	ND	0.00999				
				4871	2	NC	0.01064				
				4871	3	ND	0.00999				
				4871	4	ND	0.00999				
				4871	5	ND	0.00999				
				4904	1	NC	0.01695				
				4904	2	NC	0.01205				
				4904	3	NC	0.01059				
				4904	4	NC	0.02190				
				4904	5	NC	0.01224				
				GENL	COPPER	7440508	Existing	4277	1	NC	0.63800
								4277	2	NC	0.70099
								4277	3	NC	0.61000
								4277	4	NC	0.46200
								4277	5	NC	0.38499
								4737	1	NC	0.50690
								4737	2	NC	0.03990
								4737	3	NC	0.02166
								4737	4	NC	0.23477
								4737	5	NC	0.07300
								4806	1	NC	1.07000
								4806	2	NC	0.26499
								4806	3	NC	0.30099
								4806	4	NC	0.92599
								4806	5	NC	0.48399
				GENL	COPPER	7440508	Existing	4807	1	NC	1.31500
								4807	2	NC	1.43000
								4807	3	NC	1.36000
4807	4	NC	0.71499								
4807	5	NC	0.42649								
4817	1	NC	0.19949								
4817	2	NC	0.14949								
4817	3	NC	0.15399								
4817	4	NC	0.25999								
4817	5	NC	0.42849								
4833	1	NC	0.10999								

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)								
GENL	COPPER	7440508	Existing	4833	2	NC	0.12649								
				4833	3	NC	0.09785								
				4833	4	NC	0.13150								
				4833	5	NC	0.17550								
				4834	1	NC	0.07720								
				4834	2	NC	0.04769								
				4834	3	NC	0.05189								
				4834	4	NC	0.04540								
				4834	5	NC	0.07959								
				4847	1	NC	0.11800								
				4847	2	NC	0.10000								
				4847	3	NC	0.10300								
				4847	4	NC	0.03539								
				4847	5	NC	0.04639								
				4904	1	NC	0.03705								
				4904	2	NC	0.03999								
				4904	3	NC	0.03135								
				4904	4	NC	0.04915								
				4904	5	NC	0.07365								
				GENL	COPPER	7440508	New	4807	1	NC	0.12700				
								4807	2	NC	0.04160				
								4807	3	NC	0.04180				
								4807	4	NC	0.06630				
								4807	5	NC	0.09290				
								4854	1	NC	0.33050				
								4854	2	NC	0.03940				
								4854	3	ND	0.00800				
								4854	4	NC	0.03405				
								4854	5	ND	0.00800				
								4882	1	NC	0.06605				
								4882	2	NC	0.02055				
								4882	3	NC	0.01680				
								4882	4	NC	0.01240				
								4882	5	NC	0.01265				
								GENL	CYANIDE	57125		4274	2	ND	0.00999
												4274	3	ND	0.00999
				4274	4	ND	0.00999								
4279	1	ND	0.00999												
4279	2	ND	0.00999												
4279	3	ND	0.00999												
4279	4	ND	0.00999												
4279	5	ND	0.00999												
4384	1	NC	0.46299												
4384	2	NC	0.69400												
4384	3	NC	0.99199												
4384	4	NC	0.75800												
4384	5	NC	0.94499												
4460A	2	NC	0.01999												
4807	1	NC	0.02099												
4807	2	NC	0.02800												
4807	3	NC	0.04699												
4807	4	ND	0.01999												
4807	5	ND	0.01999												
4817	1	NC	0.57499												
4817	2	NC	0.81000												
4817	3	ND	0.20000												
4817	4	NC	0.61000												
4817	5	ND	0.01999												
4828	1	NC	0.06199												
4828	2	NC	0.18000												
4828	3	NC	0.09250												
4828	4	NC	0.07599												

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	CYANIDE	57125		4828	5	NC	0.04899				
				4834	1	ND	0.01999				
				4834	2	ND	0.01999				
				4834	3	ND	0.01999				
				4834	4	ND	0.01999				
				4834	5	ND	0.01999				
				4847	2	NC	0.01899				
				4847	3	NC	0.01049				
				4847	4	ND	0.00999				
				4847	5	ND	0.00999				
				4891	1	NC	0.07150				
				4891	2	NC	0.04399				
				4891	3	NC	0.05600				
				4891	4	NC	0.10999				
				4891	5	NC	0.15999				
				4904	1	NC	0.17499				
				4904	2	NC	0.11699				
				4904	3	NC	0.32550				
				4904	4	NC	0.30899				
				4904	5	NC	0.35899				
				6048	1	NC	0.17499				
				6048	2	NC	0.30000				
				6048	3	NC	0.18999				
				6048	4	NC	0.17000				
				6048	5	NC	0.20000				
				6186	1	NC	0.12999				
				6186	2	NC	0.20000				
				6186	3	NC	0.20999				
				6186	4	NC	0.23999				
				6186	5	NC	0.20000				
				GENL	LEAD	7439921	Existing	1197A	2	ND	0.20000
								1197A	2	NC	4.97000
								1197A	3	NC	0.46999
								4761	1	ND	0.01200
								4761	2	ND	0.01200
								4761	3	ND	0.01200
4762	1	ND	0.02480								
4762	2	ND	0.02480								
4762	3	ND	0.02480								
4762	4	ND	0.02480								
4762	5	ND	0.02480								
4834	1	NC	0.02439								
4834	2	ND	0.01600								
4834	3	NC	0.01810								
4834	4	NC	0.01860								
4834	5	NC	0.02559								
4871	1	NC	0.00870								
4871	2	NC	0.01305								
4871	3	NC	0.01099								
4871	4	NC	0.00609								
4871	5	NC	0.00829								
GENL	MANGANESE	7439965	Existing	4762	1	NC	0.16500				
				4762	2	NC	0.09690				
				4762	3	NC	0.16799				
				4762	4	NC	0.13400				
				4762	5	NC	0.12999				
				4807	1	NC	0.03015				
				4807	2	NC	0.04670				
				4807	3	NC	0.03970				
				4807	4	NC	0.07095				
				4807	5	NC	0.06064				
				4871	1	NC	0.10310				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)			
GENL	MANGANESE	7439965	Existing	4871	2	NC	0.10450			
				4871	3	NC	0.08810			
				4871	4	NC	0.07590			
				4871	5	NC	0.08690			
				4904	1	NC	0.01444			
				4904	2	NC	0.02095			
				4904	3	NC	0.01324			
				4904	4	NC	0.00795			
				4904	5	NC	0.00975			
						New	4807	1	NC	0.11700
							4807	2	NC	0.13200
							4807	3	NC	0.16200
							4807	4	NC	0.17100
							4807	5	NC	0.06750
				GENL	MOLYBDENUM	7439987	Existing	4806	1	NC
4806	2	NC	0.63899							
4806	3	NC	0.50099							
4806	4	NC	0.66500							
4806	5	NC	0.37099							
4904	1	NC	0.02830							
4904	2	NC	0.03454							
4904	3	NC	0.03655							
4904	4	NC	0.03079							
4904	5	NC	0.02745							
GENL	NICKEL	7440020	Existing	1197A	2	NC	0.07100			
				1197A	2	NC	1.39000			
				1197A	3	NC	0.20900			
				4277	1	NC	0.17299			
				4277	2	NC	0.18000			
				4277	3	NC	0.16099			
				4277	4	NC	0.18000			
				4277	5	NC	0.19699			
				4438	1	NC	0.37799			
				4438	4	NC	0.51800			
				4438	5	NC	0.34799			
				4470	1	NC	0.33860			
				4470	2	NC	0.22931			
				4470	3	NC	0.14263			
				4470	4	NC	0.22362			
				4470	5	NC	0.22212			
				4761	1	NC	0.22499			
				4761	2	NC	0.31900			
				4761	3	NC	0.25400			
				4762	1	NC	0.23199			
				4762	2	NC	0.12399			
				4762	3	NC	0.15800			
				4762	4	NC	0.21099			
				4762	5	NC	0.30399			
				4807	1	NC	0.28749			
				4807	2	NC	0.35400			
				4807	3	NC	0.31949			
				4807	4	NC	0.21999			
				4807	5	NC	0.13799			
				4811	1	NC	0.05665			
				4811	2	NC	0.05970			
				4811	3	NC	0.06340			
				4811	4	NC	0.03725			
				4811	5	ND	0.01799			
				4817	1	NC	0.02089			
				4817	2	NC	0.02844			
				4817	3	NC	0.02820			

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	NICKEL	7440020	Existing	4817	4	NC	0.04720				
				4817	5	NC	0.04735				
				4833	1	NC	0.19200				
				4833	2	ND	0.01600				
				4833	3	ND	0.01600				
				4833	4	ND	0.01600				
				4833	5	ND	0.01600				
				4834	1	NC	0.48399				
				4834	2	NC	0.31000				
				4834	3	NC	0.21600				
				4834	4	NC	0.21199				
				4834	5	NC	0.43000				
				4847	1	NC	0.04320				
				4847	2	NC	0.03109				
				4847	3	NC	0.02730				
				4847	4	NC	0.06100				
				4847	5	NC	0.10999				
				4871	1	NC	0.69749				
				4871	2	NC	0.62050				
				4871	3	NC	0.60199				
				4871	4	NC	0.53600				
				4871	5	NC	0.80199				
				4904	1	ND	0.02600				
				4904	2	ND	0.02600				
				4904	3	ND	0.02600				
				4904	4	ND	0.02600				
				4904	5	ND	0.02600				
				6048	1	NC	0.13500				
				6048	2	NC	0.51800				
				6048	3	NC	0.27000				
				6048	4	NC	0.28400				
				6048	5	NC	0.52499				
				GENL	NICKEL	7440020	New	4807	1	NC	1.58000
								4807	2	NC	0.48000
								4807	3	NC	0.55000
								4807	4	NC	0.54100
								4807	5	NC	0.60500
								4854	1	NC	0.10100
								4854	2	NC	0.01705
								4854	3	ND	0.01600
								4854	4	ND	0.01600
								4854	5	NC	0.02165
				GENL	OIL AND GREASE (AS HEM	C036	Existing	4737	1	NC	14.37500
								4737	2	NC	16.50000
								4737	3	NC	14.12500
								4737	4	NC	10.00000
								4737	5	NC	13.00000
								4871	1	ND	6.01833
								4871	2	ND	6.22333
4871	3	ND	6.17333								
4871	4	ND	6.11667								
4871	5	ND	6.15000								
GENL	SILVER	7440224	Existing	1197A	2	NC	0.02899				
				1197A	2	NC	0.43000				
				1197A	3	NC	0.55900				
				4277	1	ND	0.00499				
				4277	2	ND	0.00499				
				4277	3	NC	0.00970				
				4277	4	ND	0.00499				
				4277	5	NC	0.02710				
				4807	1	NC	0.02025				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
GENL	SILVER	7440224	Existing	4807	2	NC	0.04720
				4807	3	NC	0.07010
				4807	4	ND	0.00060
				4807	5	NC	0.02174
				4817	1	NC	0.01604
				4817	2	NC	0.07819
				4817	3	NC	0.05099
				4817	4	NC	0.06129
			4817	5	NC	0.10249	
			New	4807	1	NC	0.01840
				4807	2	ND	0.00060
				4807	3	NC	0.03310
				4807	4	NC	0.02520
				4807	5	ND	0.00060
			GENL	TIN	7440315	Existing	4817
4817	2	NC					0.02979
4817	3	NC					0.02800
4817	4	NC					0.08609
4817	5	NC					0.12200
4834	1	NC					0.81800
4834	2	NC					0.59399
4834	3	NC					1.37000
4834	4	NC					0.56900
4834	5	NC				0.72500	
New	4807	1				ND	0.01840
	4807	2				ND	0.01840
	4807	3				ND	0.01840
	4807	4				ND	0.01840
	4807	5				ND	0.01840
GENL	TOTAL ORGANIC CARBON (	C012	Existing	4737	1	NC	106.50000
				4737	2	NC	71.50000
				4737	3	NC	71.50000
				4737	4	NC	108.00000
				4737	5	NC	75.00000
				4761	1	NC	51.00000
				4761	2	NC	46.00000
				4761	3	NC	52.00000
				4762	1	NC	172.00000
				4762	2	NC	180.00000
				4762	3	NC	182.00000
				4762	4	NC	172.00000
				4762	5	NC	147.00000
				4806	1	NC	29.30000
				4806	2	NC	12.90000
				4806	3	NC	9.30000
				4806	4	NC	37.00000
				4806	5	NC	20.40000
				4807	1	NC	16.20000
				4807	2	NC	23.65000
				4807	3	NC	27.45000
				4807	4	NC	10.25000
				4807	5	NC	8.90000
				4817	1	NC	16.40000
				4817	2	NC	17.40000
				4817	3	NC	21.60000
				4817	4	NC	25.70000
				4817	5	NC	31.75000
				4833	1	ND	10.00000
				4833	2	NC	12.00000
4833	3	NC	34.00000				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	TOTAL ORGANIC CARBON (	C012	Existing	4833	4	ND	10.00000				
				4833	5	ND	10.00000				
				4834	1	NC	87.10000				
				4834	2	NC	77.90000				
				4834	3	NC	90.70000				
				4834	4	NC	67.60000				
				4834	5	NC	42.00000				
				4871	1	NC	117.50000				
				4871	2	NC	86.60000				
				4871	3	NC	117.00000				
				4871	4	NC	90.80000				
				4871	5	NC	101.00000				
				4904	1	ND	10.00000				
				4904	2	ND	10.00000				
				4904	3	ND	10.00000				
				4904	4	ND	10.00000				
				4904	5	ND	10.00000				
				GENL	TOTAL SUSPENDED SOLIDS	C009	Existing	1197A	2	NC	32.00000
								1197A	2	NC	20.00000
								1197A	3	NC	28.00000
4011	1	NC	22.00000								
4011	2	NC	28.00000								
4011	3	NC	30.00000								
4079	1	ND	5.00000								
4079	2	ND	5.00000								
4079	3	NC	9.00000								
4277	1	NC	14.00000								
4277	2	NC	14.00000								
4277	3	NC	17.00000								
4277	4	NC	10.00000								
4277	5	NC	17.00000								
4384	1	NC	23.00000								
4384	2	NC	50.00000								
4384	3	NC	32.00000								
4384	4	NC	68.00000								
4384	5	NC	55.00000								
4415	2	ND	1.00000								
4415	3	ND	1.00000								
4415	4	ND	1.00000								
4417	1	NC	12.00000								
4417	2	NC	10.00000								
4417	3	NC	7.00000								
4417	4	NC	4.00000								
4417	5	ND	2.00000								
4438	1	NC	7.00000								
4438	4	NC	8.00000								
4438	5	NC	5.00000								
4470	1	NC	32.00000								
4470	2	NC	10.00000								
4470	3	NC	10.00000								
4470	4	NC	22.00000								
4470	5	NC	14.50000								
4737	1	NC	12.50000								
4737	2	NC	20.00000								
4737	3	NC	14.50000								
4737	4	NC	35.00000								
4737	5	NC	38.00000								
4761	1	NC	25.00000								
4761	2	NC	24.00000								
4761	3	NC	17.00000								
4762	1	NC	14.00000								
4762	2	NC	13.00000								
4762	3	NC	16.00000								



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	TOTAL SUSPENDED SOLIDS	C009	Existing	4762	4	NC	16.00000				
				4762	5	NC	13.00000				
				4807	1	NC	6.00000				
				4807	2	NC	16.00000				
				4807	3	NC	7.50000				
				4807	4	NC	8.00000				
				4807	5	ND	4.00000				
				4811	1	NC	4.00000				
				4811	2	ND	4.00000				
				4811	3	ND	4.00000				
				4811	4	NC	4.00000				
				4811	5	ND	4.00000				
				4817	1	ND	8.00000				
				4817	2	ND	4.00000				
				4817	3	NC	21.00000				
				4817	4	NC	18.00000				
				4817	5	NC	8.00000				
				4833	1	NC	6.50000				
				4833	2	NC	7.00000				
				4833	3	NC	17.50000				
				4833	4	NC	5.50000				
				4833	5	NC	5.50000				
				4834	1	NC	7.00000				
				4834	2	NC	44.00000				
				4834	3	ND	4.00000				
				4834	4	NC	14.00000				
				4834	5	ND	4.00000				
				4871	1	NC	7.00000				
				4871	2	NC	8.00000				
				4871	3	NC	6.00000				
				4871	4	NC	4.00000				
				4871	5	NC	4.00000				
				4904	1	NC	4.50000				
				4904	2	ND	4.00000				
				4904	3	ND	4.00000				
				4904	4	NC	8.50000				
				4904	5	NC	7.50000				
				GENL	ZINC	7440666	Existing	1197A	2	NC	0.04100
								1197A	3	ND	0.01999
								4277	1	NC	0.02180
								4277	2	NC	0.04690
								4277	3	NC	0.04160
								4277	4	NC	0.01260
4277	5	NC	0.01530								
4415	2	NC	0.07039								
4415	3	NC	0.05759								
4415	4	NC	0.54100								
GENL	ZINC	7440666	Existing	4417	1	NC	0.15000				
				4417	2	NC	0.21299				
				4417	3	NC	0.17299				
				4417	4	NC	0.07779				
				4417	5	NC	0.21199				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
GENL	ZINC	7440666	Existing	4470	1	NC	1.79270				
				4470	2	NC	1.18100				
				4470	3	NC	0.98581				
				4470	4	NC	1.59270				
				4470	5	NC	1.35062				
				4737	1	NC	0.38565				
				4737	2	NC	0.09262				
				4737	3	NC	0.06555				
				4737	4	NC	0.05569				
				4737	5	NC	0.08816				
				4761	1	NC	0.13600				
				4761	2	NC	0.20149				
				4761	3	NC	0.14000				
				4762	1	NC	0.26899				
				4762	2	NC	0.16300				
				4762	3	NC	0.22400				
				4762	4	NC	0.17299				
				4762	5	NC	0.17499				
				4807	1	NC	0.13750				
				4807	2	NC	0.16550				
				4807	3	NC	0.19400				
				4807	4	NC	0.09745				
				4807	5	NC	0.05070				
				4811	1	NC	0.05559				
				4811	2	NC	0.04684				
				4811	3	NC	0.06289				
				4811	4	NC	0.05214				
				4811	5	NC	0.04729				
				4817	1	NC	0.44749				
				4817	2	NC	0.30050				
				4817	3	NC	0.19599				
				4817	4	NC	0.41100				
				4817	5	NC	0.30950				
				4871	1	NC	0.20350				
				4871	2	NC	0.21500				
				4871	3	NC	0.13899				
				4871	4	NC	0.12600				
				4871	5	NC	0.14100				
				4904	1	ND	0.01499				
				4904	2	NC	0.01844				
				4904	3	ND	0.01499				
				4904	4	ND	0.01499				
				4904	5	ND	0.01499				
							New	4807	1	NC	0.05760
								4807	2	NC	0.05840
								4807	3	NC	0.03980
								4807	4	NC	0.04520
								4807	5	ND	0.00020
								4854	1	NC	0.01965
								4854	2	NC	0.01700
								4854	3	ND	0.00800
								4854	4	ND	0.00800
								4854	5	ND	0.00800
								4882	1	NC	0.02840
								4882	2	NC	0.02955
								4882	3	NC	0.06715
								4882	4	NC	0.04610
								4882	5	ND	0.01100

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	*1,1-DICHLOROETHYLENE	75354	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	ND	0.00999
				4737	5	ND	0.00999
MFJ	*1-METHYLFLUORENE	1730376	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
MFJ	*1-METHYLPHENANTHRENE	832699	Existing	4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
MFJ	*2-ISOPROPYLNAPHTHALEN	2027170	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
MFJ	*2-METHYLNAPHTHALENE	91576	Existing	4851	1	NC	0.06875
				4851	2	NC	0.04608
				4851	3	NC	0.03667
				4851	4	NC	0.03700
				4851	5	NC	0.05469
MFJ	*3,6-DIMETHYLPHENANTHR	1576676	Existing	6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
MFJ	*4-CHLORO-M-CRESOL	59507	Existing	4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4876	1	NC	0.10140
				4876	2	NC	1.30840
MFJ	*ACENAPHTHENE	83329	Existing	4876	3	NC	0.32870
				4876	4	NC	0.16936
				4876	5	NC	0.72259
				4851	1	ND	0.00999
				4851	2	ND	0.01030
MFJ	*BENZOIC ACID	65850	Existing	4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4817	1	NC	0.84886
				4817	2	NC	0.11222
MFJ	*BIPHENYL	92524	Existing	4817	3	ND	0.05000
				4817	4	NC	0.19099
				4851	1	ND	0.00999
				4851	2	NC	0.01278
				4851	3	NC	0.01399
MFJ				4851	4	NC	0.01522
				4851	5	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
MFJ	*BIS(2-ETHYLHEXYL) PHT	117817	Existing	4471	1	NC	0.13031				
				4471	2	NC	0.05682				
				4471	3	NC	0.13764				
				4471	4	NC	0.10484				
				4851	1	ND	0.00999				
				4851	2	ND	0.01030				
				4851	3	ND	0.01059				
				4851	4	ND	0.01075				
				4851	5	ND	0.00999				
				4876	1	ND	0.00999				
				4876	2	ND	0.00999				
				4876	3	ND	0.00999				
				4876	4	ND	0.00999				
				4876	5	ND	0.00999				
				MFJ	*CARBON DISULFIDE	75150	Existing	4867	1	NC	0.25949
4867	2	NC	0.68949								
4867	3	NC	0.27099								
MFJ	*CHLOROFORM	67663	Existing	4788	1	NC	0.16350				
				4788	2	NC	0.21344				
				4788	3	NC	0.21115				
				MFJ	*DIBENZOTHIOPHENE	132650	Existing	4851	1	ND	0.00999
								4851	2	ND	0.01030
MFJ	*ETHYLBENZENE	100414	Existing	4851	3	ND	0.01059				
				4851	4	ND	0.01075				
				4851	5	ND	0.00999				
				MFJ	*FLUORENE	86737	Existing	4851	1	ND	0.00999
								4851	2	ND	0.01030
4851	3	ND	0.01059								
4851	4	ND	0.01075								
4851	5	ND	0.00999								
MFJ	*N-HEXADECANE	544763	Existing	4737	1	ND	0.00999				
				4737	2	ND	0.00999				
				4737	3	ND	0.05499				
				4737	4	ND	0.00999				
				4737	5	ND	0.00999				
				4805	1	ND	0.01000				
				4805	2	ND	0.01000				
				4851	1	ND	0.00999				
				4851	2	ND	0.01030				
				4851	3	ND	0.01059				
				4851	4	NC	0.01615				
				4851	5	ND	0.00999				
				4872	1	NC	0.01632				
				4872	2	ND	0.00999				
				4872	3	ND	0.00999				
4876	1	ND	0.00999								
4876	2	ND	0.00999								
4876	3	ND	0.00999								
4876	4	ND	0.00999								

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	*N-HEXADECANE	544763	Existing	4876	5	ND	0.00999
				4877	1	ND	0.00999
				4877	2	NC	0.01495
				4877	3	ND	0.00999
				4877	4	ND	0.00999
				4877	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
MFJ	*N-TETRADECANE	929594	Existing	4471	1	NC	0.02350
				4471	2	ND	0.00999
				4471	3	NC	0.01591
				4471	4	NC	0.05649
				4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	NC	0.03607
				4851	2	NC	0.01174
				4851	3	ND	0.01059
				4851	4	NC	0.02707
				4851	5	NC	0.01386
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				4892	1	ND	0.01000
				4892	2	ND	0.01000
				4892	3	NC	0.01399
				4892	4	ND	0.01000
				4892	5	NC	0.04196
				6179	1	ND	0.01000
6179	2	ND	0.01000				
6179	3	ND	0.01000				
MFJ	*NAPHTHALENE	91203	Existing	4851	1	NC	0.03893
				4851	2	NC	0.03491
				4851	3	NC	0.03582
				4851	4	NC	0.05329
				4851	5	NC	0.06996
MFJ	*P-CYMENE	99876	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
MFJ	*PHENANTHRENE	85018	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
MFJ	*PYRENE	129000	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	*PYRENE	129000	Existing	4851	4	ND	0.01075
				4851	5	ND	0.00999
MFJ	*TOLUENE	108883	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	NC	1.17472
				4737	5	NC	0.69257
				4851	1	NC	0.03442
				4851	2	NC	0.01968
				4851	3	NC	0.01872
				4851	4	NC	0.01603
				4851	5	NC	0.01840
MFJ	AMENABLE CYANIDE	C025		4807	1	ND	0.01999
				4807	2	ND	0.01999
				4807	3	ND	0.01999
				4807	4	ND	0.01999
				4807	5	ND	0.01999
				4817	1	NC	0.57499
				4817	2	NC	0.81000
				4817	3	ND	0.20000
				4817	4	NC	0.57999
				4828	1	NC	0.03500
				4828	2	NC	0.15999
				4828	3	NC	0.06300
				4828	4	NC	0.03799
				4828	5	NC	0.02400
				4834	1	ND	0.01999
				4834	2	ND	0.01999
				4834	3	ND	0.01999
				4834	4	ND	0.01999
				4834	5	ND	0.01999
				4847	2	ND	0.00999
				4847	3	NC	0.01049
				4847	4	ND	0.00999
				4847	5	ND	0.00999
				4904	1	NC	0.16249
				4904	2	NC	0.07349
				4904	3	NC	0.14300
				4904	4	NC	0.13400
				4904	5	NC	0.08200
				6048	1	NC	0.01999
				6048	2	NC	0.03700
6048	3	ND	0.00499				
6048	4	ND	0.00499				
6048	5	NC	0.01400				
6186	1	NC	0.04899				
6186	2	NC	0.02250				
6186	3	NC	0.01750				
6186	4	NC	0.10999				
6186	5	NC	0.10999				
MFJ	CADMIUM	7440439	Existing	4279	1	NC	0.08639
				4279	2	NC	0.17565
				4279	3	NC	0.21053
				4279	4	NC	0.02216
				4279	5	NC	0.18964
				4788	1	NC	0.01185
				4788	2	NC	0.04270
				4788	3	NC	0.02254
				4788	4	NC	0.01048
				4788	5	NC	0.01979
				6178	1	NC	0.04100

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	CADMIUM	7440439	Existing	6178	2	NC	0.03530
				6178	3	NC	0.02905
				6187	1	NC	0.02865
				6187	2	NC	0.07074
				6187	3	NC	0.06610
MFJ	CHROMIUM	7440473	Existing	4278	1	NC	0.00700
				4278	2	NC	0.03260
				4278	3	NC	0.01950
				4278	4	NC	0.00700
				4279	1	NC	0.36421
				4279	2	NC	0.50753
				4279	3	NC	0.57599
				4279	4	NC	0.18008
				4279	5	NC	0.83379
				4788	1	NC	0.33649
				4788	2	NC	0.18850
				4788	3	NC	0.47499
				4788	4	NC	0.23600
				4788	5	NC	0.05000
				4893	1	NC	0.12600
				4893	2	NC	0.38199
				6178	1	NC	0.14100
				6178	2	NC	0.28200
				6178	3	NC	0.62599
				6187	1	NC	0.16949
6187	2	NC	0.47850				
6187	3	NC	0.39599				
MFJ	COPPER	7440508	Existing	4278	1	NC	0.03550
				4278	2	NC	0.32899
				4278	3	NC	0.08709
				4278	4	NC	0.06080
				4279	1	NC	0.09901
				4279	2	NC	0.12349
				4279	3	NC	0.17476
				4279	4	NC	0.03440
				4279	5	NC	0.09288
				4883	1	NC	0.17599
				4883	2	NC	0.59600
				4883	3	NC	0.35850
				4883	4	NC	0.40700
				4883	5	NC	0.30399
				4894	1	NC	0.46349
				4894	2	NC	0.25299
				6178	1	NC	0.22100
				6178	2	NC	0.65299
6178	3	NC	0.43900				
6187	1	NC	0.42050				
6187	2	NC	0.20800				
6187	3	NC	0.27700				
MFJ	CYANIDE	57125		4274	2	ND	0.00999
				4274	3	ND	0.00999
				4274	4	ND	0.00999
				4279	1	ND	0.00999
				4279	2	ND	0.00999
				4279	3	ND	0.00999
				4279	4	ND	0.00999
				4279	5	ND	0.00999
				4384	1	NC	0.46299
				4384	2	NC	0.69400
				4384	3	NC	0.99199
				4384	4	NC	0.75800

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	CYANIDE	57125		4384	5	NC	0.94499
				4460A	2	NC	0.01999
				4807	1	NC	0.02099
				4807	2	NC	0.02800
				4807	3	NC	0.04699
				4807	4	ND	0.01999
				4807	5	ND	0.01999
				4817	1	NC	0.57499
				4817	2	NC	0.81000
				4817	3	ND	0.20000
				4817	4	NC	0.61000
				4817	5	ND	0.01999
				4828	1	NC	0.06199
				4828	2	NC	0.18000
				4828	3	NC	0.09250
				4828	4	NC	0.07599
				4828	5	NC	0.04899
				4834	1	ND	0.01999
				4834	2	ND	0.01999
				4834	3	ND	0.01999
				4834	4	ND	0.01999
				4834	5	ND	0.01999
				4847	2	NC	0.01899
				4847	3	NC	0.01049
				4847	4	ND	0.00999
				4847	5	ND	0.00999
				4891	1	NC	0.07150
				4891	2	NC	0.04399
				4891	3	NC	0.05600
				4891	4	NC	0.10999
				4891	5	NC	0.15999
				4904	1	NC	0.17499
				4904	2	NC	0.11699
				4904	3	NC	0.32550
				4904	4	NC	0.30899
				4904	5	NC	0.35899
				6048	1	NC	0.17499
				6048	2	NC	0.30000
				6048	3	NC	0.18999
				6048	4	NC	0.17000
				6048	5	NC	0.20000
				6186	1	NC	0.12999
6186	2	NC	0.20000				
6186	3	NC	0.20999				
6186	4	NC	0.23999				
6186	5	NC	0.20000				
MFJ	LEAD	7439921	Existing	4788	1	NC	0.16550
				4788	2	NC	0.12749
				4788	3	NC	0.15199
				4788	4	NC	0.24449
				4788	5	NC	0.19599
				6178	1	NC	0.03500
				6178	2	NC	0.07000
				6178	3	NC	0.05499
				6187	1	NC	0.08449
				6187	2	NC	0.04450
				6187	3	NC	0.07500
				MFJ	MANGANESE	7439965	Existing
4278	2	NC	0.16599				
4278	3	NC	0.11500				
4278	4	NC	0.17200				
4279	1	NC	0.03500				



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	MANGANESE	7439965	Existing	4279	2	NC	0.09300
				4279	3	NC	0.07644
				4279	4	NC	0.00753
				4279	5	NC	0.19498
				6178	1	NC	0.01269
				6178	2	NC	0.02160
				6178	3	NC	0.01669
				6187	1	NC	0.00435
				6187	2	NC	0.00359
				6187	3	NC	0.00639
MFJ	NICKEL	7440020	Existing	4278	1	NC	0.31700
				4278	2	NC	1.57000
				4278	3	NC	0.59600
				4278	4	NC	0.31799
				4279	1	NC	0.47674
				4279	2	NC	0.48102
				4279	3	NC	0.36305
				4279	4	NC	0.05809
				4279	5	NC	0.52745
				4788	1	NC	0.69050
				4788	2	NC	0.79000
				4788	3	NC	0.74849
				4788	4	NC	0.67949
				4788	5	NC	0.34200
				4883	1	NC	0.31499
				4883	2	NC	0.20499
				4883	3	NC	0.53399
				4883	4	NC	0.46500
				4883	5	NC	0.18199
4894	1	NC	0.30500				
4894	2	NC	0.23350				
MFJ	SILVER	7440224	Existing	4788	1	NC	0.02960
				4788	2	NC	0.02960
				4788	3	NC	0.00681
				4788	4	ND	0.00499
				4788	5	NC	0.01960
				6178	1	NC	0.03500
				6178	2	NC	0.00999
				6178	3	NC	1.08000
				6187	1	NC	0.04349
				6187	2	NC	0.03350
				6187	3	NC	0.01999
MFJ	TIN	7440315	Existing	4788	1	NC	1.08150
				4788	2	NC	0.94050
				4788	3	NC	1.36000
				4788	4	NC	1.46500
				4788	5	NC	1.22000
MFJ	TOTAL ORGANIC CARBON (	C012	Existing	4788	1	NC	48.00000
				4788	2	NC	42.00000
				4788	3	NC	68.50000
				4788	4	NC	50.50000
				4788	5	NC	43.00000
MFJ	ZINC	7440666	Existing	4278	1	ND	0.01099
				4278	2	NC	0.02710
				4278	3	NC	0.02229
				4278	4	ND	0.01099
				4279	1	NC	1.22940
				4279	2	NC	3.52780
				4279	3	NC	2.05930

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
MFJ	ZINC	7440666	Existing	4279	4	NC	0.26262
				4279	5	NC	2.86580
				4788	1	NC	0.01129
				4788	2	NC	0.03229
				4788	3	NC	0.02425
				4788	4	NC	0.01118
				4788	5	NC	0.01300
				4883	1	NC	0.17700
				4883	2	NC	0.26899
				4883	3	NC	0.23049
				4883	4	NC	0.32199
				4883	5	NC	0.16400
				4893	1	NC	0.08735
				4893	2	NC	0.35199
				4894	1	NC	0.11450
				4894	2	NC	0.25499
				6178	1	NC	0.04634
				6178	2	NC	0.01689
				6178	3	NC	0.01614
				6187	1	NC	0.01775
				6187	2	NC	0.01620
				6187	3	NC	0.02209

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
OILY	*1,1-DICHLOROETHYLENE	75354	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	ND	0.00999
				4737	5	ND	0.00999
OILY	*1-METHYLFLUORENE	1730376	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*1-METHYLPHENANTHRENE	832699	Existing	4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
OILY	*2-ISOPROPYLNAPHTHALEN	2027170	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*2-METHYLNAPHTHALENE	91576	Existing	4851	1	NC	0.06875
				4851	2	NC	0.04608
				4851	3	NC	0.03667
				4851	4	NC	0.03700
				4851	5	NC	0.05469
				6179	1	ND	0.01000
OILY	*3,6-DIMETHYLPHENANTHR	1576676	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*4-CHLORO-M-CRESOL	59507	Existing	4876	1	NC	0.10140
				4876	2	NC	1.30840
				4876	3	NC	0.32870
				4876	4	NC	0.16936
				4876	5	NC	0.72259
OILY	*ACENAPHTHENE	83329	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*BENZOIC ACID	65850	Existing	4817	1	NC	0.84886
				4817	2	NC	0.11222
				4817	3	ND	0.05000
				4817	4	NC	0.19099
OILY	*BIPHENYL	92524	Existing	4851	1	ND	0.00999
				4851	2	NC	0.01278
				4851	3	NC	0.01399
				4851	4	NC	0.01522
				4851	5	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
OILY	*BIS(2-ETHYLHEXYL) PHT	117817	Existing	4471	1	NC	0.13031
				4471	2	NC	0.05682
				4471	3	NC	0.13764
				4471	4	NC	0.10484
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
OILY	*CARBON DISULFIDE	75150	Existing	4867	1	NC	0.25949
				4867	2	NC	0.68949
				4867	3	NC	0.27099
				4867	4	NC	1.28000
				4867	5	NC	1.24000
OILY	*CHLOROFORM	67663	Existing	4788	1	NC	0.16350
				4788	2	NC	0.21344
				4788	3	NC	0.21115
OILY	*DIBENZOTHIOPHENE	132650	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*ETHYLBENZENE	100414	Existing	4851	1	NC	0.01164
				4851	2	ND	0.00999
				4851	3	ND	0.00999
				4851	4	ND	0.00999
				4851	5	ND	0.00999
OILY	*FLUORENE	86737	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*N-HEXADECANE	544763	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	NC	0.01615
				4851	5	ND	0.00999
				4872	1	NC	0.01632
				4872	2	ND	0.00999
				4872	3	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
OILY	*N-HEXADECANE	544763	Existing	4876	5	ND	0.00999
				4877	1	ND	0.00999
				4877	2	NC	0.01495
				4877	3	ND	0.00999
				4877	4	ND	0.00999
				4877	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
OILY	*N-TETRADECANE	929594	Existing	4471	1	NC	0.02350
				4471	2	ND	0.00999
				4471	3	NC	0.01591
				4471	4	NC	0.05649
				4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	NC	0.03607
				4851	2	NC	0.01174
				4851	3	ND	0.01059
				4851	4	NC	0.02707
				4851	5	NC	0.01386
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				4892	1	ND	0.01000
				4892	2	ND	0.01000
				4892	3	NC	0.01399
				4892	4	ND	0.01000
				4892	5	NC	0.04196
				6179	1	ND	0.01000
6179	2	ND	0.01000				
6179	3	ND	0.01000				
OILY	*NAPHTHALENE	91203	Existing	4851	1	NC	0.03893
				4851	2	NC	0.03491
				4851	3	NC	0.03582
				4851	4	NC	0.05329
				4851	5	NC	0.06996
OILY	*P-CYMENE	99876	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*PHENANTHRENE	85018	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
6179	3	ND	0.01000				
OILY	*PYRENE	129000	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
OILY	*PYRENE	129000	Existing	4851	4	ND	0.01075
				4851	5	ND	0.00999
OILY	*TOLUENE	108883	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	NC	1.17472
				4737	5	NC	0.69257
				4851	1	NC	0.03442
				4851	2	NC	0.01968
				4851	3	NC	0.01872
				4851	4	NC	0.01603
				4851	5	NC	0.01840
OILY	OIL AND GREASE (AS HEM	C036	Existing	4851	1	NC	14.93750
				4851	2	NC	18.35000
				4851	3	NC	15.37500
				4851	4	NC	14.17500
				4851	5	NC	12.15000
				4877	1	NC	24.00000
				4877	3	NC	14.75000
				4877	4	NC	21.25000
				4877	5	NC	15.00000
				OILY	TOTAL ORGANIC CARBON (	C012	Existing
4851	2	NC	254.50000				
4851	3	NC	299.50000				
4851	4	NC	480.00000				
4851	5	NC	240.00000				
4872	1	NC	173.50000				
4872	2	NC	131.00000				
4872	3	NC	260.00000				
4876	1	NC	493.00000				
4876	2	NC	313.00000				
4876	3	NC	1110.00000				
4876	4	NC	605.00000				
4876	5	NC	1270.00000				
4877	1	NC	269.00000				
4877	2	NC	206.50000				
4877	3	NC	264.00000				
4877	4	NC	329.00000				
4877	5	NC	269.00000				
OILY	TOTAL SULFIDE	1849625	Existing	4877	1	NC	4.50000
				4877	2	NC	8.00000
				4877	3	NC	3.00000
				4877	4	NC	17.00000
				4877	5	NC	3.00000
OILY	TOTAL SUSPENDED SOLIDS	C009	Existing	4471	1	NC	100.00000
				4471	2	NC	40.00000
				4471	3	NC	36.00000
				4471	4	NC	6.00000
				4851	1	NC	40.00000
				4851	2	NC	35.00000
				4851	3	NC	49.00000
				4851	4	NC	48.00000
				4851	5	NC	34.00000
				4872	1	NC	12.50000
				4872	2	NC	10.00000
				4872	3	NC	13.00000
				4876	1	NC	18.00000
				4876	2	NC	15.00000
				4876	3	NC	20.00000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
OILY	TOTAL SUSPENDED SOLIDS	C009	Existing	4876	4	NC	10.00000
				4876	5	NC	12.00000
				4877	1	NC	17.00000
				4877	3	NC	26.00000
				4877	4	NC	14.00000
				4877	5	NC	21.00000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
PWB	*1,1-DICHLOROETHYLENE	75354	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	ND	0.00999
				4737	5	ND	0.00999
PWB	*1-METHYLFLUORENE	1730376	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*1-METHYLPHENANTHRENE	832699	Existing	4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
PWB	*2-ISOPROPYLNAPHTHALEN	2027170	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*2-METHYLNAPHTHALENE	91576	Existing	4851	1	NC	0.06875
				4851	2	NC	0.04608
				4851	3	NC	0.03667
				4851	4	NC	0.03700
				4851	5	NC	0.05469
PWB				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
PWB	*3,6-DIMETHYLPHENANTHR	1576676	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*4-CHLORO-M-CRESOL	59507	Existing	4876	1	NC	0.10140
				4876	2	NC	1.30840
				4876	3	NC	0.32870
				4876	4	NC	0.16936
				4876	5	NC	0.72259
PWB	*ACENAPHTHENE	83329	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*BENZOIC ACID	65850	Existing	4817	1	NC	0.84886
				4817	2	NC	0.11222
				4817	3	ND	0.05000
				4817	4	NC	0.19099
PWB	*BIPHENYL	92524	Existing	4851	1	ND	0.00999
				4851	2	NC	0.01278
				4851	3	NC	0.01399
				4851	4	NC	0.01522
				4851	5	ND	0.00999



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
PWB	*BIS(2-ETHYLHEXYL) PHT	117817	Existing	4471	1	NC	0.13031
				4471	2	NC	0.05682
				4471	3	NC	0.13764
				4471	4	NC	0.10484
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
PWB	*CARBON DISULFIDE	75150	Existing	4867	1	NC	0.25949
				4867	2	NC	0.68949
				4867	3	NC	0.27099
				4867	4	NC	1.28000
				4867	5	NC	1.24000
PWB	*CHLOROFORM	67663	Existing	4788	1	NC	0.16350
				4788	2	NC	0.21344
				4788	3	NC	0.21115
PWB	*DIBENZOTHIOPHENE	132650	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*ETHYLBENZENE	100414	Existing	4851	1	NC	0.01164
				4851	2	ND	0.00999
				4851	3	ND	0.00999
				4851	4	ND	0.00999
				4851	5	ND	0.00999
PWB	*FLUORENE	86737	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*N-HEXADECANE	544763	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	NC	0.01615
				4851	5	ND	0.00999
				4872	1	NC	0.01632
				4872	2	ND	0.00999
				4872	3	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
PWB	*N-HEXADECANE	544763	Existing	4876	5	ND	0.00999
				4877	1	ND	0.00999
				4877	2	NC	0.01495
				4877	3	ND	0.00999
				4877	4	ND	0.00999
				4877	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
PWB	*N-TETRADECANE	929594	Existing	4471	1	NC	0.02350
				4471	2	ND	0.00999
				4471	3	NC	0.01591
				4471	4	NC	0.05649
				4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	NC	0.03607
				4851	2	NC	0.01174
				4851	3	ND	0.01059
				4851	4	NC	0.02707
				4851	5	NC	0.01386
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				4892	1	ND	0.01000
				4892	2	ND	0.01000
				4892	3	NC	0.01399
				4892	4	ND	0.01000
				4892	5	NC	0.04196
				6179	1	ND	0.01000
6179	2	ND	0.01000				
6179	3	ND	0.01000				
PWB	*NAPHTHALENE	91203	Existing	4851	1	NC	0.03893
				4851	2	NC	0.03491
				4851	3	NC	0.03582
				4851	4	NC	0.05329
				4851	5	NC	0.06996
PWB	*P-CYMENE	99876	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*PHENANTHRENE	85018	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
6179	3	ND	0.01000				
PWB	*PYRENE	129000	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
PWB	*PYRENE	129000	Existing	4851	4	ND	0.01075
				4851	5	ND	0.00999
PWB	*TOLUENE	108883	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	NC	1.17472
				4737	5	NC	0.69257
				4851	1	NC	0.03442
				4851	2	NC	0.01968
				4851	3	NC	0.01872
				4851	4	NC	0.01603
				4851	5	NC	0.01840
PWB	AMENABLE CYANIDE	C025		4807	1	ND	0.01999
				4807	2	ND	0.01999
				4807	3	ND	0.01999
				4807	4	ND	0.01999
				4807	5	ND	0.01999
				4817	1	NC	0.57499
				4817	2	NC	0.81000
				4817	3	ND	0.20000
				4817	4	NC	0.57999
				4828	1	NC	0.03500
				4828	2	NC	0.15999
				4828	3	NC	0.06300
				4828	4	NC	0.03799
				4828	5	NC	0.02400
				4834	1	ND	0.01999
				4834	2	ND	0.01999
				4834	3	ND	0.01999
				4834	4	ND	0.01999
				4834	5	ND	0.01999
				4847	2	ND	0.00999
				4847	3	NC	0.01049
				4847	4	ND	0.00999
				4847	5	ND	0.00999
				4904	1	NC	0.16249
				4904	2	NC	0.07349
				4904	3	NC	0.14300
				4904	4	NC	0.13400
				4904	5	NC	0.08200
				6048	1	NC	0.01999
				6048	2	NC	0.03700
6048	3	ND	0.00499				
6048	4	ND	0.00499				
6048	5	NC	0.01400				
6186	1	NC	0.04899				
6186	2	NC	0.02250				
6186	3	NC	0.01750				
6186	4	NC	0.10999				
6186	5	NC	0.10999				
PWB	COPPER	7440508	Existing	4866	1	NC	0.38800
				4866	2	NC	1.29500
				4866	3	NC	1.45500
				4866	4	NC	2.74000
				4866	5	NC	1.34500
				4867	1	NC	1.59500
				4867	2	NC	0.95099
				4867	3	NC	0.72899
				4867	4	NC	0.89349
				4867	5	NC	0.94050

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
			New	4855	1	ND	0.00180
				4855	2	ND	0.00180
				4855	3	ND	0.00180
				4855	4	ND	0.00180
				4855	5	NC	0.00811
PWB	CYANIDE	57125		4274	2	ND	0.00999
				4274	3	ND	0.00999
				4274	4	ND	0.00999
				4279	1	ND	0.00999
				4279	2	ND	0.00999
				4279	3	ND	0.00999
				4279	4	ND	0.00999
				4279	5	ND	0.00999
				4384	1	NC	0.46299
				4384	2	NC	0.69400
				4384	3	NC	0.99199
				4384	4	NC	0.75800
				4384	5	NC	0.94499
				4460A	2	NC	0.01999
				4807	1	NC	0.02099
				4807	2	NC	0.02800
				4807	3	NC	0.04699
				4807	4	ND	0.01999
				4807	5	ND	0.01999
				4817	1	NC	0.57499
				4817	2	NC	0.81000
				4817	3	ND	0.20000
				4817	4	NC	0.61000
				4817	5	ND	0.01999
				4828	1	NC	0.06199
				4828	2	NC	0.18000
				4828	3	NC	0.09250
				4828	4	NC	0.07599
				4828	5	NC	0.04899
				4834	1	ND	0.01999
				4834	2	ND	0.01999
				4834	3	ND	0.01999
				4834	4	ND	0.01999
				4834	5	ND	0.01999
				4847	2	NC	0.01899
				4847	3	NC	0.01049
				4847	4	ND	0.00999
				4847	5	ND	0.00999
				4891	1	NC	0.07150
				4891	2	NC	0.04399
				4891	3	NC	0.05600
				4891	4	NC	0.10999
				4891	5	NC	0.15999
				4904	1	NC	0.17499
				4904	2	NC	0.11699
				4904	3	NC	0.32550
				4904	4	NC	0.30899
				4904	5	NC	0.35899
				6048	1	NC	0.17499
				6048	2	NC	0.30000
				6048	3	NC	0.18999
				6048	4	NC	0.17000
				6048	5	NC	0.20000
				6186	1	NC	0.12999
				6186	2	NC	0.20000
				6186	3	NC	0.20999
				6186	4	NC	0.23999
				6186	5	NC	0.20000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
PWB	LEAD	7439921	New	4855	1	ND	0.02100
				4855	2	ND	0.02100
				4855	3	ND	0.02100
				4855	4	ND	0.02100
				4855	5	ND	0.02100
PWB	MANGANESE	7439965	Existing	4866	1	NC	0.21199
				4866	2	NC	0.23549
				4866	3	NC	0.28949
				4866	4	NC	0.66600
				4866	5	NC	0.64149
PWB	NICKEL	7440020	Existing	4866	1	NC	0.12049
				4866	2	NC	0.14800
				4866	3	NC	0.09144
				4866	4	NC	0.10700
				4866	5	NC	0.09019
				4867	1	NC	0.01675
				4867	2	NC	0.01585
				4867	3	NC	0.12649
				4867	4	NC	0.01889
				4867	5	NC	0.06714
PWB	TIN	7440315	Existing	4866	1	NC	0.05130
				4866	2	NC	0.14100
				4866	3	NC	0.08280
				4866	4	NC	0.09655
				4866	5	NC	0.22900
				4867	1	NC	0.02545
				4867	2	NC	0.09359
				4867	3	NC	0.01620
				4867	4	ND	0.01400
				4867	5	NC	0.03864
			New	4855	1	NC	0.04030
				4855	2	NC	0.07180
				4855	3	NC	0.05485
				4855	4	NC	0.05490
				4855	5	NC	0.05175
PWB	TOTAL ORGANIC CARBON (	C012	Existing	4866	1	NC	11.05000
				4866	2	NC	17.70000
				4866	3	NC	16.50000
				4866	4	NC	35.65000
				4866	5	NC	13.85000
				4867	1	NC	70.65000
				4867	2	NC	86.10000
				4867	3	NC	99.70000
				4867	4	NC	84.40000
				4867	5	NC	88.45000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
RRL	BOD 5-DAY (CARBONACEOU	C003	Existing	6179	1	NC	4.50000
				6179	2	NC	5.00000
				6179	3	NC	6.00000
RRL	OIL AND GREASE (AS HEM	C036	Existing	6179	1	NC	6.66667
				6179	2	NC	6.66667
				6179	3	NC	5.33333
RRL	TOTAL SUSPENDED SOLIDS	C009	Existing	6179	1	NC	14.50000
				6179	2	NC	8.50000
				6179	3	NC	9.00000

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
SFF	*1,1-DICHLOROETHYLENE	75354	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	ND	0.00999
				4737	5	ND	0.00999
SFF	*1-METHYLFLUORENE	1730376	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*1-METHYLPHENANTHRENE	832699	Existing	4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
SFF	*2-ISOPROPYLNAPHTHALEN	2027170	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*2-METHYLNAPHTHALENE	91576	Existing	4851	1	NC	0.06875
				4851	2	NC	0.04608
				4851	3	NC	0.03667
				4851	4	NC	0.03700
				4851	5	NC	0.05469
SFF				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
SFF	*3,6-DIMETHYLPHENANTHR	1576676	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*4-CHLORO-M-CRESOL	59507	Existing	4876	1	NC	0.10140
				4876	2	NC	1.30840
				4876	3	NC	0.32870
				4876	4	NC	0.16936
				4876	5	NC	0.72259
SFF	*ACENAPHTHENE	83329	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*BENZOIC ACID	65850	Existing	4817	1	NC	0.84886
				4817	2	NC	0.11222
				4817	3	ND	0.05000
				4817	4	NC	0.19099
SFF	*BIPHENYL	92524	Existing	4851	1	ND	0.00999
				4851	2	NC	0.01278
				4851	3	NC	0.01399
				4851	4	NC	0.01522
				4851	5	ND	0.00999

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
SFF	*BIS(2-ETHYLHEXYL) PHT	117817	Existing	4471	1	NC	0.13031
				4471	2	NC	0.05682
				4471	3	NC	0.13764
				4471	4	NC	0.10484
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
SFF	*CARBON DISULFIDE	75150	Existing	4867	1	NC	0.25949
				4867	2	NC	0.68949
				4867	3	NC	0.27099
				4867	4	NC	1.28000
				4867	5	NC	1.24000
SFF	*CHLOROFORM	67663	Existing	4788	1	NC	0.16350
				4788	2	NC	0.21344
				4788	3	NC	0.21115
SFF	*DIBENZOTHIOPHENE	132650	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*ETHYLBENZENE	100414	Existing	4851	1	NC	0.01164
				4851	2	ND	0.00999
				4851	3	ND	0.00999
				4851	4	ND	0.00999
				4851	5	ND	0.00999
SFF	*FLUORENE	86737	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*N-HEXADECANE	544763	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	NC	0.01615
				4851	5	ND	0.00999
				4872	1	NC	0.01632
				4872	2	ND	0.00999
				4872	3	ND	0.00999
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
SFF	*N-HEXADECANE	544763	Existing	4876	5	ND	0.00999
				4877	1	ND	0.00999
				4877	2	NC	0.01495
				4877	3	ND	0.00999
				4877	4	ND	0.00999
				4877	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
				6179	3	ND	0.01000
SFF	*N-TETRADECANE	929594	Existing	4471	1	NC	0.02350
				4471	2	ND	0.00999
				4471	3	NC	0.01591
				4471	4	NC	0.05649
				4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.05499
				4737	4	ND	0.00999
				4737	5	ND	0.00999
				4805	1	ND	0.01000
				4805	2	ND	0.01000
				4851	1	NC	0.03607
				4851	2	NC	0.01174
				4851	3	ND	0.01059
				4851	4	NC	0.02707
				4851	5	NC	0.01386
				4876	1	ND	0.00999
				4876	2	ND	0.00999
				4876	3	ND	0.00999
				4876	4	ND	0.00999
				4876	5	ND	0.00999
				4892	1	ND	0.01000
				4892	2	ND	0.01000
				4892	3	NC	0.01399
				4892	4	ND	0.01000
				4892	5	NC	0.04196
				6179	1	ND	0.01000
6179	2	ND	0.01000				
6179	3	ND	0.01000				
SFF	*NAPHTHALENE	91203	Existing	4851	1	NC	0.03893
				4851	2	NC	0.03491
				4851	3	NC	0.03582
				4851	4	NC	0.05329
				4851	5	NC	0.06996
SFF	*P-CYMENE	99876	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*PHENANTHRENE	85018	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059
				4851	4	ND	0.01075
				4851	5	ND	0.00999
				6179	1	ND	0.01000
				6179	2	ND	0.01000
6179	3	ND	0.01000				
SFF	*PYRENE	129000	Existing	4851	1	ND	0.00999
				4851	2	ND	0.01030
				4851	3	ND	0.01059

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)
SFF	*PYRENE	129000	Existing	4851	4	ND	0.01075
				4851	5	ND	0.00999
SFF	*TOLUENE	108883	Existing	4737	1	ND	0.00999
				4737	2	ND	0.00999
				4737	3	ND	0.00999
				4737	4	NC	1.17472
				4737	5	NC	0.69257
				4851	1	NC	0.03442
				4851	2	NC	0.01968
				4851	3	NC	0.01872
				4851	4	NC	0.01603
				4851	5	NC	0.01840
SFF	AMENABLE CYANIDE	C025		4807	1	ND	0.01999
				4807	2	ND	0.01999
				4807	3	ND	0.01999
				4807	4	ND	0.01999
				4807	5	ND	0.01999
				4817	1	NC	0.57499
				4817	2	NC	0.81000
				4817	3	ND	0.20000
				4817	4	NC	0.57999
				4828	1	NC	0.03500
				4828	2	NC	0.15999
				4828	3	NC	0.06300
				4828	4	NC	0.03799
				4828	5	NC	0.02400
				4834	1	ND	0.01999
				4834	2	ND	0.01999
				4834	3	ND	0.01999
				4834	4	ND	0.01999
				4834	5	ND	0.01999
				4847	2	ND	0.00999
				4847	3	NC	0.01049
				4847	4	ND	0.00999
				4847	5	ND	0.00999
				4904	1	NC	0.16249
				4904	2	NC	0.07349
				4904	3	NC	0.14300
				4904	4	NC	0.13400
				4904	5	NC	0.08200
				6048	1	NC	0.01999
				6048	2	NC	0.03700
6048	3	ND	0.00499				
6048	4	ND	0.00499				
6048	5	NC	0.01400				
6186	1	NC	0.04899				
6186	2	NC	0.02250				
6186	3	NC	0.01750				
6186	4	NC	0.10999				
6186	5	NC	0.10999				
SFF	CADMIUM	7440439	Existing	1197A	2	NC	0.07999
				1197A	3	NC	0.06100
				4277	1	NC	0.23000
				4277	2	NC	0.20200
				4277	3	NC	0.07789
				4277	4	NC	0.14000
				4277	5	NC	0.21899
				4415	2	ND	0.00499
				4415	3	ND	0.00499
				4415	4	NC	0.00549
4460	1	NC	0.02060				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
SFF	CADMIUM	7440439	Existing	4460	2	NC	0.04919				
				4460	3	NC	0.03500				
				6048	1	NC	0.85699				
				6048	2	NC	1.09000				
				6048	3	NC	0.94199				
				6048	4	NC	0.76499				
				6048	5	NC	0.80099				
							New	4882	1	NC	0.00725
								4882	2	ND	0.00500
								4882	3	NC	0.00560
								4882	4	NC	0.00730
								4882	5	NC	0.01020
				SFF	CHROMIUM	7440473	Existing	1197A	2	NC	0.02700
								1197A	2	NC	0.65600
1197A	3	NC	1.23000								
4011	1	NC	0.75599								
4011	2	NC	0.72600								
4011	3	NC	1.13000								
4079	1	NC	0.63499								
4079	2	NC	1.82000								
4079	3	NC	0.45600								
4310	2	NC	0.39500								
4310	3	NC	1.77000								
4310	4	NC	4.65000								
4330	1	NC	0.06599								
4330	2	NC	0.13112								
4330	3	NC	0.04343								
4330	4	NC	0.05015								
4330	5	NC	0.04301								
4384	1	NC	0.60299								
4384	2	NC	0.78549								
4384	3	NC	0.53200								
4384	4	NC	0.59299								
4384	5	NC	0.41100								
4415	2	NC	0.01480								
4415	3	NC	0.01960								
4415	4	NC	0.11200								
4417	1	NC	0.01989								
4417	2	NC	0.01329								
4417	3	NC	0.02920								
4417	4	NC	0.00980								
4417	5	NC	0.02160								
4438	1	NC	0.09899								
4438	4	NC	0.09099								
4438	5	NC	0.08799								
4460	1	NC	1.33000								
4460	2	NC	1.21000								
4460	3	NC	0.98400								
4470	1	NC	0.10832								
4470	2	NC	0.06859								
4470	3	NC	0.05547								
4470	4	NC	0.08252								
4470	5	NC	0.07164								
4811	1	ND	0.00800								
4811	2	ND	0.00800								
4811	3	NC	0.00965								
4811	4	NC	0.00910								
4811	5	ND	0.00800								
4817	1	NC	0.05759								
4817	2	NC	0.03144								
4817	3	NC	0.08049								
4817	4	NC	0.02170								

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)			
SFF	CHROMIUM	7440473	Existing	4817	5	NC	0.27149			
				4833	1	NC	0.03689			
				4833	2	NC	0.02814			
				4833	3	NC	0.06750			
				4833	4	NC	0.08910			
				4833	5	NC	0.11800			
				4847	1	NC	0.37999			
				4847	2	NC	0.20100			
				4847	3	NC	0.19400			
				4847	4	NC	0.18999			
				4847	5	NC	0.54299			
				4871	1	ND	0.00999			
				4871	2	NC	0.01064			
				4871	3	ND	0.00999			
				4871	4	ND	0.00999			
				4871	5	ND	0.00999			
				4904	1	NC	0.01695			
				4904	2	NC	0.01205			
			4904	3	NC	0.01059				
			4904	4	NC	0.02190				
			4904	5	NC	0.01224				
			New				4807	1	NC	0.08500
							4807	2	NC	0.01540
							4807	3	NC	0.03680
							4807	4	NC	0.02480
							4807	5	NC	0.01700
							4854	1	NC	0.01425
							4854	2	NC	0.01705
							4854	3	NC	0.01700
							4854	4	NC	0.00980
							4854	5	NC	0.01195
							4882	1	NC	0.01590
							4882	2	NC	0.03305
4882	3	NC					0.08675			
4882	4	NC					0.09540			
4882	5	NC					0.46800			
SFF	COPPER	7440508	Existing	4277	1	NC	0.63800			
				4277	2	NC	0.70099			
				4277	3	NC	0.61000			
				4277	4	NC	0.46200			
				4277	5	NC	0.38499			
				4737	1	NC	0.50690			
				4737	2	NC	0.03990			
				4737	3	NC	0.02166			
				4737	4	NC	0.23477			
				4737	5	NC	0.07300			
				4806	1	NC	1.07000			
				4806	2	NC	0.26499			
				4806	3	NC	0.30099			
				4806	4	NC	0.92599			
				4806	5	NC	0.48399			
				4807	1	NC	1.31500			
				4807	2	NC	1.43000			
				4807	3	NC	1.36000			
				4807	4	NC	0.71499			
				4807	5	NC	0.42649			
				4817	1	NC	0.19949			
				4817	2	NC	0.14949			
				4817	3	NC	0.15399			
				4817	4	NC	0.25999			
				4817	5	NC	0.42849			
				4833	1	NC	0.10999			

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)							
SFF	COPPER	7440508	Existing	4833	2	NC	0.12649							
				4833	3	NC	0.09785							
				4833	4	NC	0.13150							
				4833	5	NC	0.17550							
				4834	1	NC	0.07720							
				4834	2	NC	0.04769							
				4834	3	NC	0.05189							
				4834	4	NC	0.04540							
				4834	5	NC	0.07959							
				4847	1	NC	0.11800							
				4847	2	NC	0.10000							
				4847	3	NC	0.10300							
				4847	4	NC	0.03539							
				4847	5	NC	0.04639							
				4904	1	NC	0.03705							
				4904	2	NC	0.03999							
				4904	3	NC	0.03135							
			4904	4	NC	0.04915								
			4904	5	NC	0.07365								
			SFF	COPPER	7440508	New	4807	1	NC	0.12700				
							4807	2	NC	0.04160				
							4807	3	NC	0.04180				
							4807	4	NC	0.06630				
							4807	5	NC	0.09290				
							4854	1	NC	0.33050				
							4854	2	NC	0.03940				
							4854	3	ND	0.00800				
							4854	4	NC	0.03405				
							4854	5	ND	0.00800				
							4882	1	NC	0.06605				
							4882	2	NC	0.02055				
							4882	3	NC	0.01680				
							4882	4	NC	0.01240				
							4882	5	NC	0.01265				
							SFF	CYANIDE	57125		4274	2	ND	0.00999
											4274	3	ND	0.00999
			4274	4	ND	0.00999								
4279	1	ND	0.00999											
4279	2	ND	0.00999											
4279	3	ND	0.00999											
4279	4	ND	0.00999											
4279	5	ND	0.00999											
4384	1	NC	0.46299											
4384	2	NC	0.69400											
4384	3	NC	0.99199											
4384	4	NC	0.75800											
4384	5	NC	0.94499											
4460A	2	NC	0.01999											
4807	1	NC	0.02099											
4807	2	NC	0.02800											
4807	3	NC	0.04699											
4807	4	ND	0.01999											
4807	5	ND	0.01999											
4817	1	NC	0.57499											
4817	2	NC	0.81000											
4817	3	ND	0.20000											
4817	4	NC	0.61000											
4817	5	ND	0.01999											
4828	1	NC	0.06199											
4828	2	NC	0.18000											
4828	3	NC	0.09250											
4828	4	NC	0.07599											

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
SFF	CYANIDE	57125		4828	5	NC	0.04899				
				4834	1	ND	0.01999				
				4834	2	ND	0.01999				
				4834	3	ND	0.01999				
				4834	4	ND	0.01999				
				4834	5	ND	0.01999				
				4847	2	NC	0.01899				
				4847	3	NC	0.01049				
				4847	4	ND	0.00999				
				4847	5	ND	0.00999				
				4891	1	NC	0.07150				
				4891	2	NC	0.04399				
				4891	3	NC	0.05600				
				4891	4	NC	0.10999				
				4891	5	NC	0.15999				
				4904	1	NC	0.17499				
				4904	2	NC	0.11699				
				4904	3	NC	0.32550				
				4904	4	NC	0.30899				
				4904	5	NC	0.35899				
				6048	1	NC	0.17499				
				6048	2	NC	0.30000				
				6048	3	NC	0.18999				
				6048	4	NC	0.17000				
				6048	5	NC	0.20000				
				6186	1	NC	0.12999				
				6186	2	NC	0.20000				
				6186	3	NC	0.20999				
				6186	4	NC	0.23999				
				6186	5	NC	0.20000				
				SFF	LEAD	7439921	Existing	1197A	2	ND	0.20000
								1197A	2	NC	4.97000
								1197A	3	NC	0.46999
4761	1	ND	0.01200								
4761	2	ND	0.01200								
4761	3	ND	0.01200								
4762	1	ND	0.02480								
4762	2	ND	0.02480								
4762	3	ND	0.02480								
4762	4	ND	0.02480								
4762	5	ND	0.02480								
4834	1	NC	0.02439								
4834	2	ND	0.01600								
4834	3	NC	0.01810								
4834	4	NC	0.01860								
4834	5	NC	0.02559								
4871	1	NC	0.00870								
4871	2	NC	0.01305								
4871	3	NC	0.01099								
4871	4	NC	0.00609								
4871	5	NC	0.00829								
SFF	MANGANESE	7439965	Existing	4762	1	NC	0.16500				
				4762	2	NC	0.09690				
				4762	3	NC	0.16799				
				4762	4	NC	0.13400				
				4762	5	NC	0.12999				
				4807	1	NC	0.03015				
				4807	2	NC	0.04670				
				4807	3	NC	0.03970				
				4807	4	NC	0.07095				
				4807	5	NC	0.06064				
				4871	1	NC	0.10310				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)			
SFF	MANGANESE	7439965	Existing	4871	2	NC	0.10450			
				4871	3	NC	0.08810			
				4871	4	NC	0.07590			
				4871	5	NC	0.08690			
				4904	1	NC	0.01444			
				4904	2	NC	0.02095			
				4904	3	NC	0.01324			
				4904	4	NC	0.00795			
				4904	5	NC	0.00975			
						New	4807	1	NC	0.11700
							4807	2	NC	0.13200
							4807	3	NC	0.16200
							4807	4	NC	0.17100
							4807	5	NC	0.06750
SFF	MOLYBDENUM	7439987	Existing	4806	1	NC	1.44000			
				4806	2	NC	0.63899			
				4806	3	NC	0.50099			
				4806	4	NC	0.66500			
				4806	5	NC	0.37099			
				4904	1	NC	0.02830			
				4904	2	NC	0.03454			
				4904	3	NC	0.03655			
				4904	4	NC	0.03079			
				4904	5	NC	0.02745			
SFF	NICKEL	7440020	Existing	1197A	2	NC	0.07100			
				1197A	2	NC	1.39000			
				1197A	3	NC	0.20900			
				4277	1	NC	0.17299			
				4277	2	NC	0.18000			
				4277	3	NC	0.16099			
				4277	4	NC	0.18000			
				4277	5	NC	0.19699			
				4438	1	NC	0.37799			
				4438	4	NC	0.51800			
				4438	5	NC	0.34799			
				4470	1	NC	0.33860			
				4470	2	NC	0.22931			
				4470	3	NC	0.14263			
				4470	4	NC	0.22362			
				4470	5	NC	0.22212			
				4761	1	NC	0.22499			
				4761	2	NC	0.31900			
				4761	3	NC	0.25400			
				4762	1	NC	0.23199			
				4762	2	NC	0.12399			
				4762	3	NC	0.15800			
				4762	4	NC	0.21099			
				4762	5	NC	0.30399			
				4807	1	NC	0.28749			
				4807	2	NC	0.35400			
				4807	3	NC	0.31949			
				4807	4	NC	0.21999			
				4807	5	NC	0.13799			
				4811	1	NC	0.05665			
				4811	2	NC	0.05970			
				4811	3	NC	0.06340			
				4811	4	NC	0.03725			
				4811	5	ND	0.01799			
4817	1	NC	0.02089							
4817	2	NC	0.02844							
4817	3	NC	0.02820							

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)								
SFF	NICKEL	7440020	Existing	4817	4	NC	0.04720								
				4817	5	NC	0.04735								
				4833	1	NC	0.19200								
				4833	2	ND	0.01600								
				4833	3	ND	0.01600								
				4833	4	ND	0.01600								
				4833	5	ND	0.01600								
				4834	1	NC	0.48399								
				4834	2	NC	0.31000								
				4834	3	NC	0.21600								
				4834	4	NC	0.21199								
				4834	5	NC	0.43000								
				4847	1	NC	0.04320								
				4847	2	NC	0.03109								
				4847	3	NC	0.02730								
				4847	4	NC	0.06100								
				4847	5	NC	0.10999								
				4871	1	NC	0.69749								
				4871	2	NC	0.62050								
				4871	3	NC	0.60199								
				4871	4	NC	0.53600								
				4871	5	NC	0.80199								
				4904	1	ND	0.02600								
				4904	2	ND	0.02600								
				4904	3	ND	0.02600								
				4904	4	ND	0.02600								
				4904	5	ND	0.02600								
				6048	1	NC	0.13500								
				6048	2	NC	0.51800								
				6048	3	NC	0.27000								
				6048	4	NC	0.28400								
				6048	5	NC	0.52499								
				SFF	NICKEL	7440020	New	4807	1	NC	1.58000				
								4807	2	NC	0.48000				
								4807	3	NC	0.55000				
								4807	4	NC	0.54100				
								4807	5	NC	0.60500				
								4854	1	NC	0.10100				
								4854	2	NC	0.01705				
								4854	3	ND	0.01600				
								4854	4	ND	0.01600				
								4854	5	NC	0.02165				
								SFF	OIL AND GREASE (AS HEM	C036	Existing	4737	1	NC	14.37500
												4737	2	NC	16.50000
												4737	3	NC	14.12500
				4737	4	NC	10.00000								
				4737	5	NC	13.00000								
				4871	1	ND	6.01833								
				4871	2	ND	6.22333								
4871	3	ND	6.17333												
4871	4	ND	6.11667												
4871	5	ND	6.15000												
SFF	SILVER	7440224	Existing	1197A	2	NC	0.02899								
				1197A	2	NC	0.43000								
				1197A	3	NC	0.55900								
				4277	1	ND	0.00499								
				4277	2	ND	0.00499								
				4277	3	NC	0.00970								
				4277	4	ND	0.00499								
				4277	5	NC	0.02710								
				4807	1	NC	0.02025								



## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)	
SFF	SILVER	7440224	Existing	4807	2	NC	0.04720	
				4807	3	NC	0.07010	
				4807	4	ND	0.00060	
				4807	5	NC	0.02174	
				4817	1	NC	0.01604	
				4817	2	NC	0.07819	
				4817	3	NC	0.05099	
				4817	4	NC	0.06129	
				4817	5	NC	0.10249	
				New	4807	1	NC	0.01840
					4807	2	ND	0.00060
					4807	3	NC	0.03310
					4807	4	NC	0.02520
					4807	5	ND	0.00060
SFF	TIN	7440315	Existing	4817	1	NC	0.03400	
				4817	2	NC	0.02979	
				4817	3	NC	0.02800	
				4817	4	NC	0.08609	
				4817	5	NC	0.12200	
				4834	1	NC	0.81800	
				4834	2	NC	0.59399	
				4834	3	NC	1.37000	
				4834	4	NC	0.56900	
				4834	5	NC	0.72500	
				New	4807	1	ND	0.01840
					4807	2	ND	0.01840
					4807	3	ND	0.01840
					4807	4	ND	0.01840
4807	5	ND	0.01840					
SFF	TOTAL ORGANIC CARBON (	C012	Existing	4737	1	NC	106.50000	
				4737	2	NC	71.50000	
				4737	3	NC	71.50000	
				4737	4	NC	108.00000	
				4737	5	NC	75.00000	
				4761	1	NC	51.00000	
				4761	2	NC	46.00000	
				4761	3	NC	52.00000	
				4762	1	NC	172.00000	
				4762	2	NC	180.00000	
				4762	3	NC	182.00000	
				4762	4	NC	172.00000	
				4762	5	NC	147.00000	
				4806	1	NC	29.30000	
				4806	2	NC	12.90000	
				4806	3	NC	9.30000	
				4806	4	NC	37.00000	
				4806	5	NC	20.40000	
				4807	1	NC	16.20000	
				4807	2	NC	23.65000	
				4807	3	NC	27.45000	
				4807	4	NC	10.25000	
				4807	5	NC	8.90000	
				4817	1	NC	16.40000	
				4817	2	NC	17.40000	
				4817	3	NC	21.60000	
				4817	4	NC	25.70000	
				4817	5	NC	31.75000	
				4833	1	ND	10.00000	
4833	2	NC	12.00000					
4833	3	NC	34.00000					

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
SFF	TOTAL ORGANIC CARBON (	C012	Existing	4833	4	ND	10.00000				
				4833	5	ND	10.00000				
				4834	1	NC	87.10000				
				4834	2	NC	77.90000				
				4834	3	NC	90.70000				
				4834	4	NC	67.60000				
				4834	5	NC	42.00000				
				4871	1	NC	117.50000				
				4871	2	NC	86.60000				
				4871	3	NC	117.00000				
				4871	4	NC	90.80000				
				4871	5	NC	101.00000				
				4904	1	ND	10.00000				
				4904	2	ND	10.00000				
				4904	3	ND	10.00000				
				4904	4	ND	10.00000				
				4904	5	ND	10.00000				
				SFF	TOTAL SUSPENDED SOLIDS	C009	Existing	1197A	2	NC	32.00000
								1197A	2	NC	20.00000
								1197A	3	NC	28.00000
4011	1	NC	22.00000								
4011	2	NC	28.00000								
4011	3	NC	30.00000								
4079	1	ND	5.00000								
4079	2	ND	5.00000								
4079	3	NC	9.00000								
4277	1	NC	14.00000								
4277	2	NC	14.00000								
4277	3	NC	17.00000								
4277	4	NC	10.00000								
4277	5	NC	17.00000								
4384	1	NC	23.00000								
4384	2	NC	50.00000								
4384	3	NC	32.00000								
4384	4	NC	68.00000								
4384	5	NC	55.00000								
4415	2	ND	1.00000								
4415	3	ND	1.00000								
4415	4	ND	1.00000								
4417	1	NC	12.00000								
4417	2	NC	10.00000								
4417	3	NC	7.00000								
4417	4	NC	4.00000								
4417	5	ND	2.00000								
4438	1	NC	7.00000								
4438	4	NC	8.00000								
4438	5	NC	5.00000								
4470	1	NC	32.00000								
4470	2	NC	10.00000								
4470	3	NC	10.00000								
4470	4	NC	22.00000								
4470	5	NC	14.50000								
4737	1	NC	12.50000								
4737	2	NC	20.00000								
4737	3	NC	14.50000								
4737	4	NC	35.00000								
4737	5	NC	38.00000								
4761	1	NC	25.00000								
4761	2	NC	24.00000								
4761	3	NC	17.00000								
4762	1	NC	14.00000								
4762	2	NC	13.00000								
4762	3	NC	16.00000								

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
SFF	TOTAL SUSPENDED SOLIDS	C009	Existing	4762	4	NC	16.00000				
				4762	5	NC	13.00000				
				4807	1	NC	6.00000				
				4807	2	NC	16.00000				
				4807	3	NC	7.50000				
				4807	4	NC	8.00000				
				4807	5	ND	4.00000				
				4811	1	NC	4.00000				
				4811	2	ND	4.00000				
				4811	3	ND	4.00000				
				4811	4	NC	4.00000				
				4811	5	ND	4.00000				
				4817	1	ND	8.00000				
				4817	2	ND	4.00000				
				4817	3	NC	21.00000				
				4817	4	NC	18.00000				
				4817	5	NC	8.00000				
				4833	1	NC	6.50000				
				4833	2	NC	7.00000				
				4833	3	NC	17.50000				
				4833	4	NC	5.50000				
				4833	5	NC	5.50000				
				4834	1	NC	7.00000				
				4834	2	NC	44.00000				
				4834	3	ND	4.00000				
				4834	4	NC	14.00000				
				4834	5	ND	4.00000				
				4871	1	NC	7.00000				
				4871	2	NC	8.00000				
				4871	3	NC	6.00000				
				4871	4	NC	4.00000				
				4871	5	NC	4.00000				
				4904	1	NC	4.50000				
				4904	2	ND	4.00000				
				4904	3	ND	4.00000				
				4904	4	NC	8.50000				
				4904	5	NC	7.50000				
							New	4807	1	NC	30.00000
								4807	2	NC	17.00000
								4807	3	NC	23.00000
								4807	4	NC	13.00000
								4807	5	NC	27.00000
								4882	1	NC	4.50000
4882	2	ND	4.00000								
4882	3	ND	4.00000								
4882	4	ND	4.00000								
4882	5	ND	4.00000								
SFF	ZINC	7440666	Existing	1197A	2	NC	0.04100				
				1197A	3	ND	0.01999				
				4277	1	NC	0.02180				
				4277	2	NC	0.04690				
				4277	3	NC	0.04160				
				4277	4	NC	0.01260				
				4277	5	NC	0.01530				
				4415	2	NC	0.07039				
				4415	3	NC	0.05759				
				4415	4	NC	0.54100				
				4417	1	NC	0.15000				
				4417	2	NC	0.21299				
				4417	3	NC	0.17299				
				4417	4	NC	0.07779				
				4417	5	NC	0.21199				

## Appendix A. Daily Effluent Data Listing (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Day	NC/ND	Concentration (mg/L)				
SFF	ZINC	7440666	Existing	4470	1	NC	1.79270				
				4470	2	NC	1.18100				
				4470	3	NC	0.98581				
				4470	4	NC	1.59270				
				4470	5	NC	1.35062				
				4737	1	NC	0.38565				
				4737	2	NC	0.09262				
				4737	3	NC	0.06555				
				4737	4	NC	0.05569				
				4737	5	NC	0.08816				
				4761	1	NC	0.13600				
				4761	2	NC	0.20149				
				4761	3	NC	0.14000				
				4762	1	NC	0.26899				
				4762	2	NC	0.16300				
				4762	3	NC	0.22400				
				4762	4	NC	0.17299				
				4762	5	NC	0.17499				
				4807	1	NC	0.13750				
				4807	2	NC	0.16550				
				4807	3	NC	0.19400				
				4807	4	NC	0.09745				
				4807	5	NC	0.05070				
				4811	1	NC	0.05559				
				4811	2	NC	0.04684				
				4811	3	NC	0.06289				
				4811	4	NC	0.05214				
				4811	5	NC	0.04729				
				4817	1	NC	0.44749				
				4817	2	NC	0.30050				
				4817	3	NC	0.19599				
				4817	4	NC	0.41100				
				4817	5	NC	0.30950				
				4871	1	NC	0.20350				
				4871	2	NC	0.21500				
				4871	3	NC	0.13899				
				4871	4	NC	0.12600				
				4871	5	NC	0.14100				
				4904	1	ND	0.01499				
				4904	2	NC	0.01844				
				4904	3	ND	0.01499				
				4904	4	ND	0.01499				
				4904	5	ND	0.01499				
							New	4807	1	NC	0.05760
								4807	2	NC	0.05840
								4807	3	NC	0.03980
								4807	4	NC	0.04520
								4807	5	ND	0.00020
								4854	1	NC	0.01965
								4854	2	NC	0.01700
								4854	3	ND	0.00800
								4854	4	ND	0.00800
								4854	5	ND	0.00800
								4882	1	NC	0.02840
								4882	2	NC	0.02955
								4882	3	NC	0.06715
								4882	4	NC	0.04610
								4882	5	ND	0.01100

## Appendix B. Effluent Data Summary Statistics

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
ANO	ALUMINUM	7429905	Existing	4856	5	0	3.3740	3.04000	2.23000	5.29000
				4869	5	0	1.6635	1.08050	0.64300	4.65000
				--ALL--	10	0	2.5187	2.57000	0.64300	5.29000
ANO	TOTAL SUSPENDED SOLIDS	C009	Existing	4856	5	0	7.6000	7.00000	6.00000	11.00000
				4869	5	2	16.4000	10.00000	4.00000	52.00000
				--ALL--	10	2	12.0000	7.50000	4.00000	52.00000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
DRYD	BOD 5-DAY (CARBONACEOUS)	C003	Existing	4805	2	0	21.0000	21.00000	6.00000	36.00000
				4891	5	0	280.3800	107.00000	62.30000	1000.00000
				4892	5	0	64.4000	29.50000	15.50000	192.00000
				--ALL--	12	0	147.1583	61.15000	6.00000	1000.00000
DRYD	OIL AND GREASE (AS HEM)	C036	Existing	4891	5	3	6.2200	5.60000	5.35000	8.35000
				4892	5	0	11.7666	11.75000	8.50000	17.25000
				--ALL--	10	3	8.9933	8.42500	5.35000	17.25000
DRYD	TOTAL SUSPENDED SOLIDS	C009	Existing	4805	2	0	29.5000	29.50000	21.00000	38.00000
				4891	5	0	11.6000	11.00000	5.00000	18.00000
				4892	5	0	55.0000	44.50000	37.50000	102.00000
				--ALL--	12	0	32.6666	29.25000	5.00000	102.00000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
GENL	*1,1-DICHLOROETHYLENE	75354	Existing	4737 --ALL--	5 5	5 5	0.0099 0.0099	0.00999 0.00999	0.00999 0.00999	0.00999 0.00999
GENL	*1-METHYLFLUORENE	1730376	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
GENL	*1-METHYLPHENANTHRENE	832699	Existing	4805 4851 --ALL--	2 5 7	2 5 7	0.0100 0.0103 0.0102	0.01000 0.01030 0.01000	0.01000 0.00999 0.00999	0.01000 0.01075 0.01075
GENL	*2-ISOPROPYLNAPHTHALENE	2027170	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
GENL	*2-METHYLNAPHTHALENE	91576	Existing	4851 6179 --ALL--	5 3 8	0 3 3	0.0486 0.0100 0.0341	0.04608 0.01000 0.03684	0.03667 0.01000 0.01000	0.06875 0.01000 0.06875
GENL	*3,6-DIMETHYLPHENANTHRENE	1576676	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
GENL	*4-CHLORO-M-CRESOL	59507	Existing	4876 --ALL--	5 5	0 0	0.5260 0.5260	0.32870 0.32870	0.10140 0.10140	1.30840 1.30840
GENL	*ACENAPHTHENE	83329	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
GENL	*BENZOIC ACID	65850	Existing	4817 --ALL--	4 4	1 1	0.3005 0.3005	0.15161 0.15161	0.05000 0.05000	0.84886 0.84886
GENL	*BIPHENYL	92524	Existing	4851 --ALL--	5 5	2 2	0.0123 0.0123	0.01278 0.01278	0.00999 0.00999	0.01522 0.01522
GENL	*BIS(2-ETHYLHEXYL) PHTHAL	117817	Existing	4471 4851 4876 6179 --ALL--	4 5 5 3 17	0 5 5 3 13	0.1074 0.0103 0.0099 0.0100 0.0330	0.11758 0.01030 0.00999 0.01000 0.01000	0.05682 0.00999 0.00999 0.01000 0.00999	0.13764 0.01075 0.00999 0.01000 0.13764
GENL	*CARBON DISULFIDE	75150	Existing	4867 --ALL--	5 5	0 0	0.7479 0.7479	0.68949 0.68949	0.25949 0.25949	1.28000 1.28000
GENL	*CHLOROFORM	67663	Existing	4788 --ALL--	3 3	0 0	0.1960 0.1960	0.21115 0.21115	0.16350 0.16350	0.21344 0.21344
GENL	*DIBENZOTHIOPHENE	132650	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
GENL	*ETHYLBENZENE	100414	Existing	4851 --ALL--	5 5	4 4	0.0103 0.0103	0.00999 0.00999	0.00999 0.00999	0.01164 0.01164

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
GENL	*FLUORENE	86737	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
GENL	*N-HEXADECANE	544763	Existing	4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	4	0.0114	0.01030	0.00999	0.01615
				4872	3	2	0.0121	0.00999	0.00999	0.01632
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4877	5	4	0.0109	0.00999	0.00999	0.01495
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	28	25	0.0122	0.00999	0.00999	0.05499
GENL	*N-TETRADECANE	929594	Existing	4471	4	1	0.0264	0.01971	0.00999	0.05649
				4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	1	0.0198	0.01386	0.01059	0.03607
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4892	5	3	0.0171	0.01000	0.01000	0.04196
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	29	20	0.0167	0.01000	0.00999	0.05649
GENL	*NAPHTHALENE	91203	Existing	4851	5	0	0.0465	0.03893	0.03491	0.06996
				--ALL--	5	0	0.0465	0.03893	0.03491	0.06996
GENL	*P-CYMENE	99876	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
GENL	*PHENANTHRENE	85018	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	8	8	0.0102	0.01000	0.00999	0.01075
GENL	*PYRENE	129000	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
GENL	*TOLUENE	108883	Existing	4737	5	3	0.3794	0.00999	0.00999	1.17472
				4851	5	0	0.0214	0.01872	0.01603	0.03442
				--ALL--	10	3	0.2004	0.01856	0.00999	1.17472
GENL	AMENABLE CYANIDE	C025		4807	5	5	0.0199	0.01999	0.01999	0.01999
				4817	4	1	0.5412	0.57749	0.20000	0.81000
				4828	5	0	0.0640	0.03799	0.02400	0.15999
				4834	5	5	0.0199	0.01999	0.01999	0.01999
				4847	4	3	0.0101	0.00999	0.00999	0.01049
				4904	5	0	0.1190	0.13400	0.07349	0.16249
				6048	5	2	0.0161	0.01400	0.00499	0.03700
				6186	5	0	0.0617	0.04899	0.01750	0.10999
--ALL--	38	16	0.0976	0.02125	0.00499	0.81000				
GENL	CADMIUM	7440439	Existing	1197A	2	0	0.0705	0.07050	0.06100	0.07999
				4277	5	0	0.1737	0.20200	0.07789	0.23000
				4415	3	2	0.0051	0.00499	0.00499	0.00549
				4460	3	0	0.0349	0.03500	0.02060	0.04919
				6048	5	0	0.8909	0.85699	0.76499	1.09000
				--ALL--	18	2	0.3102	0.11000	0.00499	1.09000



## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
GENL	CADMIUM	7440439	New	4882 --ALL--	5 5	1 1	0.0070 0.0070	0.00725 0.00725	0.00500 0.00500	0.01020 0.01020
GENL	CHROMIUM	7440473	Existing	1197A 4011 4079 4310 4330 4384 4415 4417 4438 4460 4470 4811 4817 4833 4847 4871 4904 --ALL--	3 3 3 3 5 5 3 5 3 3 5 5 5 5 5 5 5 71	0 0 0 0 0 0 0 0 0 0 0 3 0 0 0 4 0 0	0.6376 0.8706 0.9703 2.2716 0.0667 0.5848 0.0488 0.0187 0.0926 1.1746 0.0773 0.0085 0.0925 0.0679 0.3015 0.0101 0.0147 0.3438	0.65600 0.75599 0.63499 1.77000 0.05015 0.59299 0.01960 0.01989 0.09099 1.21000 0.07164 0.00800 0.05759 0.06750 0.20100 0.00999 0.01224 0.07164	0.02700 0.72600 0.45600 0.39500 0.04301 0.41100 0.01480 0.00980 0.08799 0.98400 0.05547 0.00800 0.02170 0.02814 0.18999 0.00999 0.01059 0.00800	1.23000 1.13000 1.82000 4.65000 0.13112 0.78549 0.11200 0.02920 0.09899 1.33000 0.10832 0.00965 0.27149 0.11800 0.54299 0.01064 0.02190 4.65000
			New	4807 4854 4882 --ALL--	5 5 5 15	0 0 0 0	0.0358 0.0140 0.1398 0.0632	0.02480 0.01425 0.08675 0.01705	0.01540 0.00980 0.01590 0.00980	0.08500 0.01705 0.46800 0.46800
GENL	COPPER	7440508	Existing	4277 4737 4806 4807 4817 4833 4834 4847 4904 --ALL--	5 5 5 5 5 5 5 5 5 45	0 0 0 0 0 0 0 0 0 0	0.5592 0.1752 0.6091 1.0493 0.2382 0.1282 0.0603 0.0805 0.0462 0.3274	0.61000 0.07300 0.48399 1.31500 0.19949 0.12649 0.05189 0.10000 0.03999 0.14949	0.38499 0.02166 0.26499 0.42649 0.14949 0.09785 0.04540 0.03539 0.03135 0.02166	0.70099 0.50690 1.07000 1.43000 0.42849 0.17550 0.07959 0.11800 0.07365 1.43000
			New	4807 4854 4882 --ALL--	5 5 5 15	0 2 0 2	0.0739 0.0839 0.0256 0.0612	0.06630 0.03405 0.01680 0.03940	0.04160 0.00800 0.01240 0.00800	0.12700 0.33050 0.06605 0.33050
GENL	CYANIDE	57125		4274 4279 4384 4460A 4807 4817 4828 4834 4847 4891 4904 6048 6186 --ALL--	3 5 5 1 5 5 5 5 4 5 5 5 5 58	3 5 0 0 2 2 0 5 2 0 0 0 0 19	0.0099 0.0099 0.7703 0.0199 0.0271 0.4430 0.0918 0.0199 0.0123 0.0882 0.2570 0.2070 0.1959 0.1836	0.00999 0.00999 0.75800 0.01999 0.02099 0.57499 0.07599 0.01999 0.01024 0.07150 0.30899 0.18999 0.20000 0.07375	0.00999 0.00999 0.46299 0.01999 0.01999 0.01999 0.04899 0.01999 0.00999 0.04399 0.11699 0.17000 0.12999 0.00999	0.00999 0.00999 0.99199 0.01999 0.04699 0.81000 0.18000 0.01999 0.01899 0.15999 0.35899 0.30000 0.23999 0.99199
GENL	LEAD	7439921	Existing	1197A	3	1	1.8800	0.46999	0.20000	4.97000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)	
GENL	LEAD	7439921	Existing	4761	3	3	0.0120	0.01200	0.01200	0.01200	
				4762	5	5	0.0248	0.02480	0.02480	0.02480	
				4834	5	1	0.0205	0.01860	0.01600	0.02559	
				4871	5	0	0.0094	0.00870	0.00609	0.01305	
				--ALL--	21	10	0.2833	0.01860	0.00609	4.97000	
GENL	MANGANESE	7439965	Existing	4762	5	0	0.1387	0.13400	0.09690	0.16799	
				4807	5	0	0.0496	0.04670	0.03015	0.07095	
				4871	5	0	0.0917	0.08810	0.07590	0.10450	
				4904	5	0	0.0132	0.01324	0.00795	0.02095	
				--ALL--	20	0	0.0733	0.07343	0.00795	0.16799	
			New	4807	5	0	0.1299	0.13200	0.06750	0.17100	
				--ALL--	5	0	0.1299	0.13200	0.06750	0.17100	
GENL	MOLYBDENUM	7439987	Existing	4806	5	0	0.7231	0.63899	0.37099	1.44000	
				4904	5	0	0.0315	0.03079	0.02745	0.03655	
				--ALL--	10	0	0.3773	0.20377	0.02745	1.44000	
GENL	NICKEL	7440020	Existing	1197A	3	0	0.5566	0.20900	0.07100	1.39000	
				4277	5	0	0.1781	0.18000	0.16099	0.19699	
				4438	3	0	0.4146	0.37799	0.34799	0.51800	
				4470	5	0	0.2312	0.22362	0.14263	0.33860	
				4761	3	0	0.2660	0.25400	0.22499	0.31900	
				4762	5	0	0.2057	0.21099	0.12399	0.30399	
				4807	5	0	0.2637	0.28749	0.13799	0.35400	
				4811	5	1	0.0470	0.05665	0.01799	0.06340	
				4817	5	0	0.0344	0.02844	0.02089	0.04735	
				4833	5	4	0.0512	0.01600	0.01600	0.19200	
				4834	5	0	0.3304	0.31000	0.21199	0.48399	
				4847	5	0	0.0545	0.04320	0.02730	0.10999	
				4871	5	0	0.6515	0.62050	0.53600	0.80199	
				4904	5	5	0.0260	0.02600	0.02600	0.02600	
				6048	5	0	0.3464	0.28400	0.13500	0.52499	
				--ALL--	69	10	0.2292	0.19200	0.01600	1.39000	
				New	4807	5	0	0.7512	0.55000	0.48000	1.58000
					4854	5	2	0.0343	0.01705	0.01600	0.10100
			--ALL--		10	2	0.3927	0.29050	0.01600	1.58000	
			GENL	OIL AND GREASE (AS HEM)	C036	Existing	4737	5	0	13.6000	14.12500
4871	5	5					6.1363	6.15000	6.01833	6.22333	
--ALL--	10	5					9.8681	8.11167	6.01833	16.50000	
GENL	SILVER	7440224	Existing	1197A	3	0	0.3393	0.43000	0.02899	0.55900	
				4277	5	3	0.0103	0.00499	0.00499	0.02710	
				4807	5	1	0.0319	0.02174	0.00060	0.07010	
				4817	5	0	0.0618	0.06129	0.01604	0.10249	
				--ALL--	18	4	0.0854	0.02805	0.00060	0.55900	
			New	4807	5	2	0.0155	0.01840	0.00060	0.03310	
				--ALL--	5	2	0.0155	0.01840	0.00060	0.03310	
GENL	TIN	7440315	Existing	4817	5	0	0.0599	0.03400	0.02800	0.12200	
				4834	5	0	0.8152	0.72500	0.56900	1.37000	
				--ALL--	10	0	0.4375	0.34550	0.02800	1.37000	

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
			New	4807	5	5	0.0184	0.01840	0.01840	0.01840
				--ALL--	5	5	0.0184	0.01840	0.01840	0.01840
GENL	TOTAL ORGANIC CARBON (TOC)	C012	Existing	4737	5	0	86.5000	75.00000	71.50000	108.00000
				4761	3	0	49.6666	51.00000	46.00000	52.00000
				4762	5	0	170.6000	172.00000	147.00000	182.00000
				4806	5	0	21.7800	20.40000	9.30000	37.00000
				4807	5	0	17.2900	16.20000	8.90000	27.45000
				4817	5	0	22.5700	21.60000	16.40000	31.75000
				4833	5	3	15.2000	10.00000	10.00000	34.00000
				4834	5	0	73.0600	77.90000	42.00000	90.70000
				4871	5	0	102.5800	101.00000	86.60000	117.50000
				4904	5	5	10.0000	10.00000	10.00000	10.00000
				--ALL--	48	8	57.2270	35.50000	8.90000	182.00000
GENL	TOTAL SUSPENDED SOLIDS	C009	Existing	1197A	3	0	26.6666	28.00000	20.00000	32.00000
				4011	3	0	26.6666	28.00000	22.00000	30.00000
				4079	3	2	6.3333	5.00000	5.00000	9.00000
				4277	5	0	14.4000	14.00000	10.00000	17.00000
				4384	5	0	45.6000	50.00000	23.00000	68.00000
				4415	3	3	1.0000	1.00000	1.00000	1.00000
				4417	5	1	7.0000	7.00000	2.00000	12.00000
				4438	3	0	6.6666	7.00000	5.00000	8.00000
				4470	5	0	17.7000	14.50000	10.00000	32.00000
				4737	5	0	24.0000	20.00000	12.50000	38.00000
				4761	3	0	22.0000	24.00000	17.00000	25.00000
				4762	5	0	14.4000	14.00000	13.00000	16.00000
				4807	5	1	8.3000	7.50000	4.00000	16.00000
				4811	5	3	4.0000	4.00000	4.00000	4.00000
				4817	5	2	11.8000	8.00000	4.00000	21.00000
				4833	5	0	8.4000	6.50000	5.50000	17.50000
				4834	5	2	14.6000	7.00000	4.00000	44.00000
				4871	5	0	5.8000	6.00000	4.00000	8.00000
				4904	5	2	5.7000	4.50000	4.00000	8.50000
				--ALL--	83	16	14.1747	10.00000	1.00000	68.00000
			New	4807	5	0	22.0000	23.00000	13.00000	30.00000
				4882	5	4	4.1000	4.00000	4.00000	4.50000
				--ALL--	10	4	13.0500	8.75000	4.00000	30.00000
GENL	ZINC	7440666	Existing	1197A	2	1	0.0305	0.03050	0.01999	0.04100
				4277	5	0	0.0276	0.02180	0.01260	0.04690
				4415	3	0	0.2229	0.07039	0.05759	0.54100
				4417	5	0	0.1651	0.17299	0.07779	0.21299
				4470	5	0	1.3805	1.35062	0.98581	1.79270
				4737	5	0	0.1375	0.08816	0.05569	0.38565
				4761	3	0	0.1591	0.14000	0.13600	0.20149
				4762	5	0	0.2007	0.17499	0.16300	0.26899
				4807	5	0	0.1290	0.13750	0.05070	0.19400
				4811	5	0	0.0529	0.05214	0.04684	0.06289
				4817	5	0	0.3329	0.30950	0.19599	0.44749
				4871	5	0	0.1649	0.14100	0.12600	0.21500
				4904	5	4	0.0156	0.01499	0.01499	0.01844
				--ALL--	58	5	0.2455	0.13825	0.01260	1.79270
			New	4807	5	1	0.0402	0.04520	0.00020	0.05840
				4854	5	3	0.0121	0.00800	0.00800	0.01965
				4882	5	1	0.0364	0.02955	0.01100	0.06715

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
GENL	ZINC	7440666	New	--ALL--	15	5	0.0296	0.02840	0.00020	0.06715

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
MFJ	*1,1-DICHLOROETHYLENE	75354	Existing	4737 --ALL--	5 5	5 5	0.0099 0.0099	0.00999 0.00999	0.00999 0.00999	0.00999 0.00999
MFJ	*1-METHYLFLUORENE	1730376	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
MFJ	*1-METHYLPHENANTHRENE	832699	Existing	4805 4851 --ALL--	2 5 7	2 5 7	0.0100 0.0103 0.0102	0.01000 0.01030 0.01000	0.01000 0.00999 0.00999	0.01000 0.01075 0.01075
MFJ	*2-ISOPROPYLNAPHTHALENE	2027170	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
MFJ	*2-METHYLNAPHTHALENE	91576	Existing	4851 6179 --ALL--	5 3 8	0 3 3	0.0486 0.0100 0.0341	0.04608 0.01000 0.03684	0.03667 0.01000 0.01000	0.06875 0.01000 0.06875
MFJ	*3,6-DIMETHYLPHENANTHRENE	1576676	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
MFJ	*4-CHLORO-M-CRESOL	59507	Existing	4876 --ALL--	5 5	0 0	0.5260 0.5260	0.32870 0.32870	0.10140 0.10140	1.30840 1.30840
MFJ	*ACENAPHTHENE	83329	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
MFJ	*BENZOIC ACID	65850	Existing	4817 --ALL--	4 4	1 1	0.3005 0.3005	0.15161 0.15161	0.05000 0.05000	0.84886 0.84886
MFJ	*BIPHENYL	92524	Existing	4851 --ALL--	5 5	2 2	0.0123 0.0123	0.01278 0.01278	0.00999 0.00999	0.01522 0.01522
MFJ	*BIS(2-ETHYLHEXYL) PHTHAL	117817	Existing	4471 4851 4876 6179 --ALL--	4 5 5 3 17	0 5 5 3 13	0.1074 0.0103 0.0099 0.0100 0.0330	0.11758 0.01030 0.00999 0.01000 0.01000	0.05682 0.00999 0.00999 0.01000 0.00999	0.13764 0.01075 0.00999 0.01000 0.13764
MFJ	*CARBON DISULFIDE	75150	Existing	4867 --ALL--	5 5	0 0	0.7479 0.7479	0.68949 0.68949	0.25949 0.25949	1.28000 1.28000
MFJ	*CHLOROFORM	67663	Existing	4788 --ALL--	3 3	0 0	0.1960 0.1960	0.21115 0.21115	0.16350 0.16350	0.21344 0.21344
MFJ	*DIBENZOTHIOPHENE	132650	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
MFJ	*ETHYLBENZENE	100414	Existing	4851 --ALL--	5 5	4 4	0.0103 0.0103	0.00999 0.00999	0.00999 0.00999	0.01164 0.01164

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
MFJ	*FLUORENE	86737	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
MFJ	*N-HEXADECANE	544763	Existing	4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	4	0.0114	0.01030	0.00999	0.01615
				4872	3	2	0.0121	0.00999	0.00999	0.01632
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4877	5	4	0.0109	0.00999	0.00999	0.01495
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	28	25	0.0122	0.00999	0.00999	0.05499
MFJ	*N-TETRADECANE	929594	Existing	4471	4	1	0.0264	0.01971	0.00999	0.05649
				4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	1	0.0198	0.01386	0.01059	0.03607
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4892	5	3	0.0171	0.01000	0.01000	0.04196
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	29	20	0.0167	0.01000	0.00999	0.05649
MFJ	*NAPHTHALENE	91203	Existing	4851	5	0	0.0465	0.03893	0.03491	0.06996
				--ALL--	5	0	0.0465	0.03893	0.03491	0.06996
MFJ	*P-CYMENE	99876	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
MFJ	*PHENANTHRENE	85018	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	8	8	0.0102	0.01000	0.00999	0.01075
MFJ	*PYRENE	129000	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
MFJ	*TOLUENE	108883	Existing	4737	5	3	0.3794	0.00999	0.00999	1.17472
				4851	5	0	0.0214	0.01872	0.01603	0.03442
				--ALL--	10	3	0.2004	0.01856	0.00999	1.17472
MFJ	AMENABLE CYANIDE	C025		4807	5	5	0.0199	0.01999	0.01999	0.01999
				4817	4	1	0.5412	0.57749	0.20000	0.81000
				4828	5	0	0.0640	0.03799	0.02400	0.15999
				4834	5	5	0.0199	0.01999	0.01999	0.01999
				4847	4	3	0.0101	0.00999	0.00999	0.01049
				4904	5	0	0.1190	0.13400	0.07349	0.16249
				6048	5	2	0.0161	0.01400	0.00499	0.03700
				6186	5	0	0.0617	0.04899	0.01750	0.10999
--ALL--	38	16	0.0976	0.02125	0.00499	0.81000				
MFJ	CADMIUM	7440439	Existing	4279	5	0	0.1368	0.17565	0.02216	0.21053
				4788	5	0	0.0214	0.01979	0.01048	0.04270
				6178	3	0	0.0351	0.03530	0.02905	0.04100
				6187	3	0	0.0551	0.06610	0.02865	0.07074
				--ALL--	16	0	0.0664	0.03815	0.01048	0.21053
MFJ	CHROMIUM	7440473	Existing	4278	4	0	0.0165	0.01325	0.00700	0.03260

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
MFJ	CHROMIUM	7440473	Existing	4279	5	0	0.4923	0.50753	0.18008	0.83379
				4788	5	0	0.2572	0.23600	0.05000	0.47499
				4893	2	0	0.2540	0.25400	0.12600	0.38199
				6178	3	0	0.3496	0.28200	0.14100	0.62599
				6187	3	0	0.3479	0.39599	0.16949	0.47850
				--ALL--	22	0	0.2915	0.25900	0.00700	0.83379
MFJ	COPPER	7440508	Existing	4278	4	0	0.1281	0.07395	0.03550	0.32899
				4279	5	0	0.1049	0.09901	0.03440	0.17476
				4883	5	0	0.3683	0.35850	0.17599	0.59600
				4894	2	0	0.3582	0.35824	0.25299	0.46349
				6178	3	0	0.4376	0.43900	0.22100	0.65299
				6187	3	0	0.3018	0.27700	0.20800	0.42050
--ALL--	22	0	0.2642	0.23700	0.03440	0.65299				
MFJ	CYANIDE	57125		4274	3	3	0.0099	0.00999	0.00999	0.00999
				4279	5	5	0.0099	0.00999	0.00999	0.00999
				4384	5	0	0.7703	0.75800	0.46299	0.99199
				4460A	1	0	0.0199	0.01999	0.01999	0.01999
				4807	5	2	0.0271	0.02099	0.01999	0.04699
				4817	5	2	0.4430	0.57499	0.01999	0.81000
				4828	5	0	0.0918	0.07599	0.04899	0.18000
				4834	5	5	0.0199	0.01999	0.01999	0.01999
				4847	4	2	0.0123	0.01024	0.00999	0.01899
				4891	5	0	0.0882	0.07150	0.04399	0.15999
				4904	5	0	0.2570	0.30899	0.11699	0.35899
				6048	5	0	0.2070	0.18999	0.17000	0.30000
				6186	5	0	0.1959	0.20000	0.12999	0.23999
				--ALL--	58	19	0.1836	0.07375	0.00999	0.99199
MFJ	LEAD	7439921	Existing	4788	5	0	0.1770	0.16550	0.12749	0.24449
				6178	3	0	0.0533	0.05499	0.03500	0.07000
				6187	3	0	0.0680	0.07500	0.04450	0.08449
				--ALL--	11	0	0.1135	0.08449	0.03500	0.24449
MFJ	MANGANESE	7439965	Existing	4278	4	0	0.1585	0.16900	0.11500	0.18099
				4279	5	0	0.0813	0.07644	0.00753	0.19498
				6178	3	0	0.0169	0.01669	0.01269	0.02160
				6187	3	0	0.0047	0.00435	0.00359	0.00639
--ALL--	15	0	0.0737	0.03500	0.00359	0.19498				
MFJ	NICKEL	7440020	Existing	4278	4	0	0.7002	0.45700	0.31700	1.57000
				4279	5	0	0.3812	0.47674	0.05809	0.52745
				4788	5	0	0.6501	0.69050	0.34200	0.79000
				4883	5	0	0.3401	0.31499	0.18199	0.53399
				4894	2	0	0.2692	0.26925	0.23350	0.30500
--ALL--	21	0	0.4855	0.46500	0.05809	1.57000				
MFJ	SILVER	7440224	Existing	4788	5	1	0.0181	0.01960	0.00499	0.02960
				6178	3	0	0.3750	0.03500	0.00999	1.08000
				6187	3	0	0.0323	0.03350	0.01999	0.04349
--ALL--	11	1	0.1193	0.02960	0.00499	1.08000				
MFJ	TIN	7440315	Existing	4788	5	0	1.2134	1.22000	0.94050	1.46500
				--ALL--	5	0	1.2134	1.22000	0.94050	1.46500
MFJ	TOTAL ORGANIC CARBON (TOC)	C012	Existing	4788	5	0	50.4000	48.00000	42.00000	68.50000

**Appendix B. Effluent Data Summary Statistics (continued)**

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
MFJ	TOTAL ORGANIC CARBON (TOC)	C012	Existing	--ALL--	5	0	50.4000	48.00000	42.00000	68.50000
MFJ	ZINC	7440666	Existing	4278	4	2	0.0178	0.01664	0.01099	0.02710
				4279	5	0	1.9889	2.05930	0.26262	3.52780
				4788	5	0	0.0184	0.01300	0.01118	0.03229
				4883	5	0	0.2324	0.23049	0.16400	0.32199
				4893	2	0	0.2196	0.21967	0.08735	0.35199
				4894	2	0	0.1847	0.18475	0.11450	0.25499
				6178	3	0	0.0264	0.01689	0.01614	0.04634
				6187	3	0	0.0186	0.01775	0.01620	0.02209
				--ALL--	29	2	0.4212	0.04634	0.01099	3.52780



## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
OILY	*1,1-DICHLOROETHYLENE	75354	Existing	4737 --ALL--	5 5	5 5	0.0099 0.0099	0.00999 0.00999	0.00999 0.00999	0.00999 0.00999
OILY	*1-METHYLFLUORENE	1730376	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
OILY	*1-METHYLPHENANTHRENE	832699	Existing	4805 4851 --ALL--	2 5 7	2 5 7	0.0100 0.0103 0.0102	0.01000 0.01030 0.01000	0.01000 0.00999 0.00999	0.01000 0.01075 0.01075
OILY	*2-ISOPROPYLNAPHTHALENE	2027170	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
OILY	*2-METHYLNAPHTHALENE	91576	Existing	4851 6179 --ALL--	5 3 8	0 3 3	0.0486 0.0100 0.0341	0.04608 0.01000 0.03684	0.03667 0.01000 0.01000	0.06875 0.01000 0.06875
OILY	*3,6-DIMETHYLPHENANTHRENE	1576676	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
OILY	*4-CHLORO-M-CRESOL	59507	Existing	4876 --ALL--	5 5	0 0	0.5260 0.5260	0.32870 0.32870	0.10140 0.10140	1.30840 1.30840
OILY	*ACENAPHTHENE	83329	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
OILY	*BENZOIC ACID	65850	Existing	4817 --ALL--	4 4	1 1	0.3005 0.3005	0.15161 0.15161	0.05000 0.05000	0.84886 0.84886
OILY	*BIPHENYL	92524	Existing	4851 --ALL--	5 5	2 2	0.0123 0.0123	0.01278 0.01278	0.00999 0.00999	0.01522 0.01522
OILY	*BIS(2-ETHYLHEXYL) PHTHAL	117817	Existing	4471 4851 4876 6179 --ALL--	4 5 5 3 17	0 5 5 3 13	0.1074 0.0103 0.0099 0.0100 0.0330	0.11758 0.01030 0.00999 0.01000 0.01000	0.05682 0.00999 0.00999 0.01000 0.00999	0.13764 0.01075 0.00999 0.01000 0.13764
OILY	*CARBON DISULFIDE	75150	Existing	4867 --ALL--	5 5	0 0	0.7479 0.7479	0.68949 0.68949	0.25949 0.25949	1.28000 1.28000
OILY	*CHLOROFORM	67663	Existing	4788 --ALL--	3 3	0 0	0.1960 0.1960	0.21115 0.21115	0.16350 0.16350	0.21344 0.21344
OILY	*DIBENZOTHIOPHENE	132650	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
OILY	*ETHYLBENZENE	100414	Existing	4851 --ALL--	5 5	4 4	0.0103 0.0103	0.00999 0.00999	0.00999 0.00999	0.01164 0.01164

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
OILY	*FLUORENE	86737	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
OILY	*N-HEXADECANE	544763	Existing	4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	4	0.0114	0.01030	0.00999	0.01615
				4872	3	2	0.0121	0.00999	0.00999	0.01632
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4877	5	4	0.0109	0.00999	0.00999	0.01495
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	28	25	0.0122	0.00999	0.00999	0.05499
OILY	*N-TETRADECANE	929594	Existing	4471	4	1	0.0264	0.01971	0.00999	0.05649
				4737	5	5	0.0189	0.00999	0.00999	0.05499
				4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	1	0.0198	0.01386	0.01059	0.03607
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				4892	5	3	0.0171	0.01000	0.01000	0.04196
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	29	20	0.0167	0.01000	0.00999	0.05649
OILY	*NAPHTHALENE	91203	Existing	4851	5	0	0.0465	0.03893	0.03491	0.06996
				--ALL--	5	0	0.0465	0.03893	0.03491	0.06996
OILY	*P-CYMENE	99876	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
OILY	*PHENANTHRENE	85018	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	8	8	0.0102	0.01000	0.00999	0.01075
OILY	*PYRENE	129000	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
OILY	*TOLUENE	108883	Existing	4737	5	3	0.3794	0.00999	0.00999	1.17472
				4851	5	0	0.0214	0.01872	0.01603	0.03442
				--ALL--	10	3	0.2004	0.01856	0.00999	1.17472
OILY	OIL AND GREASE (AS HEM)	C036	Existing	4851	5	0	14.9975	14.93750	12.15000	18.35000
				4877	4	0	18.7500	18.12500	14.75000	24.00000
				--ALL--	9	0	16.6652	15.00000	12.15000	24.00000
OILY	TOTAL ORGANIC CARBON (TOC)	C012	Existing	4851	5	0	295.2000	254.50000	202.00000	480.00000
				4872	3	0	188.1666	173.50000	131.00000	260.00000
				4876	5	0	758.2000	605.00000	313.00000	1270.00000
				4877	5	0	267.5000	269.00000	206.50000	329.00000
				--ALL--	18	0	398.2777	269.00000	131.00000	1270.00000
OILY	TOTAL SULFIDE	1849625	Existing	4877	5	0	7.1000	4.50000	3.00000	17.00000
				--ALL--	5	0	7.1000	4.50000	3.00000	17.00000
OILY	TOTAL SUSPENDED SOLIDS	C009	Existing	4471	4	0	45.5000	38.00000	6.00000	100.00000
				4851	5	0	41.2000	40.00000	34.00000	49.00000
				4872	3	0	11.8333	12.50000	10.00000	13.00000

**Appendix B. Effluent Data Summary Statistics (continued)**

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
OILY	TOTAL SUSPENDED SOLIDS	C009	Existing	4876	5	0	15.0000	15.00000	10.00000	20.00000
				4877	4	0	19.5000	19.00000	14.00000	26.00000
				--ALL--	21	0	27.4523	20.00000	6.00000	100.00000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
PWB	*1,1-DICHLOROETHYLENE	75354	Existing	4737	5	5	0.0099	0.00999	0.00999	0.00999
				--ALL--	5	5	0.0099	0.00999	0.00999	0.00999
PWB	*1-METHYLFLUORENE	1730376	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
PWB	*1-METHYLPHENANTHRENE	832699	Existing	4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	7	7	0.0102	0.01000	0.00999	0.01075
PWB	*2-ISOPROPYLNAPHTHALENE	2027170	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
PWB	*2-METHYLNAPHTHALENE	91576	Existing	4851	5	0	0.0486	0.04608	0.03667	0.06875
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	8	3	0.0341	0.03684	0.01000	0.06875
PWB	*3,6-DIMETHYLPHENANTHRENE	1576676	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
PWB	*4-CHLORO-M-CRESOL	59507	Existing	4876	5	0	0.5260	0.32870	0.10140	1.30840
				--ALL--	5	0	0.5260	0.32870	0.10140	1.30840
PWB	*ACENAPHTHENE	83329	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
PWB	*BENZOIC ACID	65850	Existing	4817	4	1	0.3005	0.15161	0.05000	0.84886
				--ALL--	4	1	0.3005	0.15161	0.05000	0.84886
PWB	*BIPHENYL	92524	Existing	4851	5	2	0.0123	0.01278	0.00999	0.01522
				--ALL--	5	2	0.0123	0.01278	0.00999	0.01522
PWB	*BIS(2-ETHYLHEXYL) PHTHAL	117817	Existing	4471	4	0	0.1074	0.11758	0.05682	0.13764
				4851	5	5	0.0103	0.01030	0.00999	0.01075
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	17	13	0.0330	0.01000	0.00999	0.13764
PWB	*CARBON DISULFIDE	75150	Existing	4867	5	0	0.7479	0.68949	0.25949	1.28000
				--ALL--	5	0	0.7479	0.68949	0.25949	1.28000
PWB	*CHLOROFORM	67663	Existing	4788	3	0	0.1960	0.21115	0.16350	0.21344
				--ALL--	3	0	0.1960	0.21115	0.16350	0.21344
PWB	*DIBENZOTHIOPHENE	132650	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
PWB	*ETHYLBENZENE	100414	Existing	4851	5	4	0.0103	0.00999	0.00999	0.01164
				--ALL--	5	4	0.0103	0.00999	0.00999	0.01164

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
PWB	*FLUORENE	86737	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
PWB	*N-HEXADECANE	544763	Existing	4737 4805 4851 4872 4876 4877 6179 --ALL--	5 2 5 3 5 5 3 28	5 2 4 2 5 4 3 25	0.0189 0.0100 0.0114 0.0121 0.0099 0.0109 0.0100 0.0122	0.00999 0.01000 0.01030 0.00999 0.00999 0.00999 0.01000 0.00999	0.00999 0.01000 0.00999 0.00999 0.00999 0.00999 0.01000 0.00999	0.05499 0.01000 0.01615 0.01632 0.00999 0.01495 0.01000 0.05499
PWB	*N-TETRADECANE	929594	Existing	4471 4737 4805 4851 4876 4892 6179 --ALL--	4 5 2 5 5 5 3 29	1 5 2 1 5 3 3 20	0.0264 0.0189 0.0100 0.0198 0.0099 0.0171 0.0100 0.0167	0.01971 0.00999 0.01000 0.01386 0.00999 0.01000 0.01000 0.01000	0.00999 0.00999 0.01000 0.01059 0.00999 0.01000 0.01000 0.00999	0.05649 0.05499 0.01000 0.03607 0.00999 0.04196 0.01000 0.05649
PWB	*NAPHTHALENE	91203	Existing	4851 --ALL--	5 5	0 0	0.0465 0.0465	0.03893 0.03893	0.03491 0.03491	0.06996 0.06996
PWB	*P-CYMENE	99876	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
PWB	*PHENANTHRENE	85018	Existing	4851 6179 --ALL--	5 3 8	5 3 8	0.0103 0.0100 0.0102	0.01030 0.01000 0.01000	0.00999 0.01000 0.00999	0.01075 0.01000 0.01075
PWB	*PYRENE	129000	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
PWB	*TOLUENE	108883	Existing	4737 4851 --ALL--	5 5 10	3 0 3	0.3794 0.0214 0.2004	0.00999 0.01872 0.01856	0.00999 0.01603 0.00999	1.17472 0.03442 1.17472
PWB	AMENABLE CYANIDE	C025		4807 4817 4828 4834 4847 4904 6048 6186 --ALL--	5 4 5 5 4 5 5 5 38	5 1 0 5 3 0 2 0 16	0.0199 0.5412 0.0640 0.0199 0.0101 0.1190 0.0161 0.0617 0.0976	0.01999 0.57749 0.03799 0.01999 0.00999 0.13400 0.01400 0.04899 0.02125	0.01999 0.20000 0.02400 0.01999 0.00999 0.07349 0.00499 0.01750 0.00499	0.01999 0.81000 0.15999 0.01999 0.01049 0.16249 0.03700 0.10999 0.81000
PWB	COPPER	7440508	Existing	4866 4867 --ALL--	5 5 10	0 0 0	1.4446 1.0217 1.2332	1.34500 0.94050 1.12300	0.38800 0.72899 0.38800	2.74000 1.59500 2.74000
			New	4855 --ALL--	5 5	4 4	0.0030 0.0030	0.00180 0.00180	0.00180 0.00180	0.00811 0.00811

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)				
PWB	CYANIDE	57125		4274	3	3	0.0099	0.00999	0.00999	0.00999				
				4279	5	5	0.0099	0.00999	0.00999	0.00999				
				4384	5	0	0.7703	0.75800	0.46299	0.99199				
				4460A	1	0	0.0199	0.01999	0.01999	0.01999				
				4807	5	2	0.0271	0.02099	0.01999	0.04699				
				4817	5	2	0.4430	0.57499	0.01999	0.81000				
				4828	5	0	0.0918	0.07599	0.04899	0.18000				
				4834	5	5	0.0199	0.01999	0.01999	0.01999				
				4847	4	2	0.0123	0.01024	0.00999	0.01899				
				4891	5	0	0.0882	0.07150	0.04399	0.15999				
				4904	5	0	0.2570	0.30899	0.11699	0.35899				
				6048	5	0	0.2070	0.18999	0.17000	0.30000				
				6186	5	0	0.1959	0.20000	0.12999	0.23999				
				--ALL--	58	19	0.1836	0.07375	0.00999	0.99199				
				PWB	LEAD	7439921	New	4855	5	5	0.0210	0.02100	0.02100	0.02100
								--ALL--	5	5	0.0210	0.02100	0.02100	0.02100
PWB	MANGANESE	7439965	Existing	4866	5	0	0.4088	0.28949	0.21199	0.66600				
				--ALL--	5	0	0.4088	0.28949	0.21199	0.66600				
PWB	NICKEL	7440020	Existing	4866	5	0	0.1114	0.10700	0.09019	0.14800				
				4867	5	0	0.0490	0.01889	0.01585	0.12649				
				--ALL--	10	0	0.0802	0.09082	0.01585	0.14800				
PWB	TIN	7440315	Existing	4866	5	0	0.1201	0.09655	0.05130	0.22900				
				4867	5	1	0.0375	0.02545	0.01400	0.09359				
				--ALL--	10	1	0.0788	0.06705	0.01400	0.22900				
			New	4855	5	0	0.0547	0.05485	0.04030	0.07180				
				--ALL--	5	0	0.0547	0.05485	0.04030	0.07180				
PWB	TOTAL ORGANIC CARBON (TOC)	C012	Existing	4866	5	0	18.9500	16.50000	11.05000	35.65000				
				4867	5	0	85.8600	86.10000	70.65000	99.70000				
				--ALL--	10	0	52.4050	53.15000	11.05000	99.70000				

**Appendix B. Effluent Data Summary Statistics (continued)**

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
RRL	BOD 5-DAY (CARBONACEOUS)	C003	Existing	6179 --ALL--	3 3	0 0	5.1666 5.1666	5.00000 5.00000	4.50000 4.50000	6.00000 6.00000
RRL	OIL AND GREASE (AS HEM)	C036	Existing	6179 --ALL--	3 3	0 0	6.2222 6.2222	6.66667 6.66667	5.33333 5.33333	6.66667 6.66667
RRL	TOTAL SUSPENDED SOLIDS	C009	Existing	6179 --ALL--	3 3	0 0	10.6666 10.6666	9.00000 9.00000	8.50000 8.50000	14.50000 14.50000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
SFF	*1,1-DICHLOROETHYLENE	75354	Existing	4737	5	5	0.0099	0.00999	0.00999	0.00999
				--ALL--	5	5	0.0099	0.00999	0.00999	0.00999
SFF	*1-METHYLFLUORENE	1730376	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
SFF	*1-METHYLPHENANTHRENE	832699	Existing	4805	2	2	0.0100	0.01000	0.01000	0.01000
				4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	7	7	0.0102	0.01000	0.00999	0.01075
SFF	*2-ISOPROPYLNAPHTHALENE	2027170	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
SFF	*2-METHYLNAPHTHALENE	91576	Existing	4851	5	0	0.0486	0.04608	0.03667	0.06875
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	8	3	0.0341	0.03684	0.01000	0.06875
SFF	*3,6-DIMETHYLPHENANTHRENE	1576676	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
SFF	*4-CHLORO-M-CRESOL	59507	Existing	4876	5	0	0.5260	0.32870	0.10140	1.30840
				--ALL--	5	0	0.5260	0.32870	0.10140	1.30840
SFF	*ACENAPHTHENE	83329	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
SFF	*BENZOIC ACID	65850	Existing	4817	4	1	0.3005	0.15161	0.05000	0.84886
				--ALL--	4	1	0.3005	0.15161	0.05000	0.84886
SFF	*BIPHENYL	92524	Existing	4851	5	2	0.0123	0.01278	0.00999	0.01522
				--ALL--	5	2	0.0123	0.01278	0.00999	0.01522
SFF	*BIS(2-ETHYLHEXYL) PHTHAL	117817	Existing	4471	4	0	0.1074	0.11758	0.05682	0.13764
				4851	5	5	0.0103	0.01030	0.00999	0.01075
				4876	5	5	0.0099	0.00999	0.00999	0.00999
				6179	3	3	0.0100	0.01000	0.01000	0.01000
				--ALL--	17	13	0.0330	0.01000	0.00999	0.13764
SFF	*CARBON DISULFIDE	75150	Existing	4867	5	0	0.7479	0.68949	0.25949	1.28000
				--ALL--	5	0	0.7479	0.68949	0.25949	1.28000
SFF	*CHLOROFORM	67663	Existing	4788	3	0	0.1960	0.21115	0.16350	0.21344
				--ALL--	3	0	0.1960	0.21115	0.16350	0.21344
SFF	*DIBENZOTHIOPHENE	132650	Existing	4851	5	5	0.0103	0.01030	0.00999	0.01075
				--ALL--	5	5	0.0103	0.01030	0.00999	0.01075
SFF	*ETHYLBENZENE	100414	Existing	4851	5	4	0.0103	0.00999	0.00999	0.01164
				--ALL--	5	4	0.0103	0.00999	0.00999	0.01164



## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDS	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
SFF	*FLUORENE	86737	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
SFF	*N-HEXADECANE	544763	Existing	4737 4805 4851 4872 4876 4877 6179 --ALL--	5 2 5 3 5 5 3 28	5 2 4 2 5 4 3 25	0.0189 0.0100 0.0114 0.0121 0.0099 0.0109 0.0100 0.0122	0.00999 0.01000 0.01030 0.00999 0.00999 0.00999 0.01000 0.00999	0.00999 0.01000 0.00999 0.00999 0.00999 0.00999 0.01000 0.00999	0.05499 0.01000 0.01615 0.01632 0.00999 0.01495 0.01000 0.05499
SFF	*N-TETRADECANE	929594	Existing	4471 4737 4805 4851 4876 4892 6179 --ALL--	4 5 2 5 5 5 3 29	1 5 2 1 5 3 3 20	0.0264 0.0189 0.0100 0.0198 0.0099 0.0171 0.0100 0.0167	0.01971 0.00999 0.01000 0.01386 0.00999 0.01000 0.01000 0.01000	0.00999 0.00999 0.01000 0.01059 0.00999 0.01000 0.01000 0.00999	0.05649 0.05499 0.01000 0.03607 0.00999 0.04196 0.01000 0.05649
SFF	*NAPHTHALENE	91203	Existing	4851 --ALL--	5 5	0 0	0.0465 0.0465	0.03893 0.03893	0.03491 0.03491	0.06996 0.06996
SFF	*P-CYMENE	99876	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
SFF	*PHENANTHRENE	85018	Existing	4851 6179 --ALL--	5 3 8	5 3 8	0.0103 0.0100 0.0102	0.01030 0.01000 0.01000	0.00999 0.01000 0.00999	0.01075 0.01000 0.01075
SFF	*PYRENE	129000	Existing	4851 --ALL--	5 5	5 5	0.0103 0.0103	0.01030 0.01030	0.00999 0.00999	0.01075 0.01075
SFF	*TOLUENE	108883	Existing	4737 4851 --ALL--	5 5 10	3 0 3	0.3794 0.0214 0.2004	0.00999 0.01872 0.01856	0.00999 0.01603 0.00999	1.17472 0.03442 1.17472
SFF	AMENABLE CYANIDE	C025		4807 4817 4828 4834 4847 4904 6048 6186 --ALL--	5 4 5 5 4 5 5 5 38	5 1 0 5 3 0 2 0 16	0.0199 0.5412 0.0640 0.0199 0.0101 0.1190 0.0161 0.0617 0.0976	0.01999 0.57749 0.03799 0.01999 0.00999 0.13400 0.01400 0.04899 0.02125	0.01999 0.20000 0.02400 0.01999 0.00999 0.07349 0.00499 0.01750 0.00499	0.01999 0.81000 0.15999 0.01999 0.01049 0.16249 0.03700 0.10999 0.81000
SFF	CADMIUM	7440439	Existing	1197A 4277 4415 4460 6048 --ALL--	2 5 3 3 5 18	0 0 2 0 0 2	0.0705 0.1737 0.0051 0.0349 0.8909 0.3102	0.07050 0.20200 0.00499 0.03500 0.85699 0.11000	0.06100 0.07789 0.00499 0.02060 0.76499 0.00499	0.07999 0.23000 0.00549 0.04919 1.09000 1.09000

**Appendix B. Effluent Data Summary Statistics (continued)**

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)				
SFF	CADMIUM	7440439	New	4882	5	1	0.0070	0.00725	0.00500	0.01020				
				--ALL--	5	1	0.0070	0.00725	0.00500	0.01020				
SFF	CHROMIUM	7440473	Existing	1197A	3	0	0.6376	0.65600	0.02700	1.23000				
				4011	3	0	0.8706	0.75599	0.72600	1.13000				
				4079	3	0	0.9703	0.63499	0.45600	1.82000				
				4310	3	0	2.2716	1.77000	0.39500	4.65000				
				4330	5	0	0.0667	0.05015	0.04301	0.13112				
				4384	5	0	0.5848	0.59299	0.41100	0.78549				
				4415	3	0	0.0488	0.01960	0.01480	0.11200				
				4417	5	0	0.0187	0.01989	0.00980	0.02920				
				4438	3	0	0.0926	0.09099	0.08799	0.09899				
				4460	3	0	1.1746	1.21000	0.98400	1.33000				
				4470	5	0	0.0773	0.07164	0.05547	0.10832				
				4811	5	3	0.0085	0.00800	0.00800	0.00965				
				4817	5	0	0.0925	0.05759	0.02170	0.27149				
				4833	5	0	0.0679	0.06750	0.02814	0.11800				
				4847	5	0	0.3015	0.20100	0.18999	0.54299				
				4871	5	4	0.0101	0.00999	0.00999	0.01064				
				4904	5	0	0.0147	0.01224	0.01059	0.02190				
				--ALL--	71	7	0.3438	0.07164	0.00800	4.65000				
				SFF	COPPER	7440508	Existing	4807	5	0	0.0358	0.02480	0.01540	0.08500
								4854	5	0	0.0140	0.01425	0.00980	0.01705
								4882	5	0	0.1398	0.08675	0.01590	0.46800
								--ALL--	15	0	0.0632	0.01705	0.00980	0.46800
								4277	5	0	0.5592	0.61000	0.38499	0.70099
SFF	COPPER	7440508	Existing	4737	5	0	0.1752	0.07300	0.02166	0.50690				
				4806	5	0	0.6091	0.48399	0.26499	1.07000				
				4807	5	0	1.0493	1.31500	0.42649	1.43000				
				4817	5	0	0.2382	0.19949	0.14949	0.42849				
				4833	5	0	0.1282	0.12649	0.09785	0.17550				
				4834	5	0	0.0603	0.05189	0.04540	0.07959				
				4847	5	0	0.0805	0.10000	0.03539	0.11800				
				4904	5	0	0.0462	0.03999	0.03135	0.07365				
				--ALL--	45	0	0.3274	0.14949	0.02166	1.43000				
				SFF	COPPER	7440508	New	4807	5	0	0.0739	0.06630	0.04160	0.12700
								4854	5	2	0.0839	0.03405	0.00800	0.33050
								4882	5	0	0.0256	0.01680	0.01240	0.06605
								--ALL--	15	2	0.0612	0.03940	0.00800	0.33050
				SFF	CYANIDE	57125	Existing	4274	3	3	0.0099	0.00999	0.00999	0.00999
								4279	5	5	0.0099	0.00999	0.00999	0.00999
								4384	5	0	0.7703	0.75800	0.46299	0.99199
								4460A	1	0	0.0199	0.01999	0.01999	0.01999
								4807	5	2	0.0271	0.02099	0.01999	0.04699
								4817	5	2	0.4430	0.57499	0.01999	0.81000
								4828	5	0	0.0918	0.07599	0.04899	0.18000
								4834	5	5	0.0199	0.01999	0.01999	0.01999
								4847	4	2	0.0123	0.01024	0.00999	0.01899
								4891	5	0	0.0882	0.07150	0.04399	0.15999
4904	5	0	0.2570					0.30899	0.11699	0.35899				
6048	5	0	0.2070					0.18999	0.17000	0.30000				
6186	5	0	0.1959					0.20000	0.12999	0.23999				
--ALL--	58	19	0.1836					0.07375	0.00999	0.99199				
SFF	LEAD	7439921	Existing					1197A	3	1	1.8800	0.46999	0.20000	4.97000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)				
SFF	LEAD	7439921	Existing	4761	3	3	0.0120	0.01200	0.01200	0.01200				
				4762	5	5	0.0248	0.02480	0.02480	0.02480				
				4834	5	1	0.0205	0.01860	0.01600	0.02559				
				4871	5	0	0.0094	0.00870	0.00609	0.01305				
				--ALL--	21	10	0.2833	0.01860	0.00609	4.97000				
SFF	MANGANESE	7439965	Existing	4762	5	0	0.1387	0.13400	0.09690	0.16799				
				4807	5	0	0.0496	0.04670	0.03015	0.07095				
				4871	5	0	0.0917	0.08810	0.07590	0.10450				
				4904	5	0	0.0132	0.01324	0.00795	0.02095				
				--ALL--	20	0	0.0733	0.07343	0.00795	0.16799				
			New	4807	5	0	0.1299	0.13200	0.06750	0.17100				
				--ALL--	5	0	0.1299	0.13200	0.06750	0.17100				
				SFF	MOLYBDENUM	7439987	Existing	4806	5	0	0.7231	0.63899	0.37099	1.44000
								4904	5	0	0.0315	0.03079	0.02745	0.03655
								--ALL--	10	0	0.3773	0.20377	0.02745	1.44000
SFF	NICKEL	7440020	Existing					1197A	3	0	0.5566	0.20900	0.07100	1.39000
								4277	5	0	0.1781	0.18000	0.16099	0.19699
				4438	3	0	0.4146	0.37799	0.34799	0.51800				
				4470	5	0	0.2312	0.22362	0.14263	0.33860				
				4761	3	0	0.2660	0.25400	0.22499	0.31900				
				4762	5	0	0.2057	0.21099	0.12399	0.30399				
				4807	5	0	0.2637	0.28749	0.13799	0.35400				
				4811	5	1	0.0470	0.05665	0.01799	0.06340				
				4817	5	0	0.0344	0.02844	0.02089	0.04735				
				4833	5	4	0.0512	0.01600	0.01600	0.19200				
			4834	5	0	0.3304	0.31000	0.21199	0.48399					
			4847	5	0	0.0545	0.04320	0.02730	0.10999					
			4871	5	0	0.6515	0.62050	0.53600	0.80199					
			4904	5	5	0.0260	0.02600	0.02600	0.02600					
			6048	5	0	0.3464	0.28400	0.13500	0.52499					
			--ALL--	69	10	0.2292	0.19200	0.01600	1.39000					
			New	4807	5	0	0.7512	0.55000	0.48000	1.58000				
				4854	5	2	0.0343	0.01705	0.01600	0.10100				
				--ALL--	10	2	0.3927	0.29050	0.01600	1.58000				
			SFF	OIL AND GREASE (AS HEM)	C036	Existing	4737	5	0	13.6000	14.12500	10.00000	16.50000	
4871	5	5					6.1363	6.15000	6.01833	6.22333				
--ALL--	10	5					9.8681	8.11167	6.01833	16.50000				
SFF	SILVER	7440224	Existing	1197A	3	0	0.3393	0.43000	0.02899	0.55900				
				4277	5	3	0.0103	0.00499	0.00499	0.02710				
				4807	5	1	0.0319	0.02174	0.00060	0.07010				
				4817	5	0	0.0618	0.06129	0.01604	0.10249				
				--ALL--	18	4	0.0854	0.02805	0.00060	0.55900				
			New	4807	5	2	0.0155	0.01840	0.00060	0.03310				
				--ALL--	5	2	0.0155	0.01840	0.00060	0.03310				
				SFF	TIN	7440315	Existing	4817	5	0	0.0599	0.03400	0.02800	0.12200
								4834	5	0	0.8152	0.72500	0.56900	1.37000
								--ALL--	10	0	0.4375	0.34550	0.02800	1.37000

## Appendix B. Effluent Data Summary Statistics (continued)

Subcategory	Analyte	CAS Number	New Source or Existing Source Trt. Option	EPA Sampling Episode	Sample Size	Number of NDs	Mean (mg/L)	Median (mg/L)	Min (mg/L)	Max (mg/L)
			New	4807	5	5	0.0184	0.01840	0.01840	0.01840
				--ALL--	5	5	0.0184	0.01840	0.01840	0.01840
SFF	TOTAL ORGANIC CARBON (TOC)	C012	Existing	4737	5	0	86.5000	75.00000	71.50000	108.00000
				4761	3	0	49.6666	51.00000	46.00000	52.00000
				4762	5	0	170.6000	172.00000	147.00000	182.00000
				4806	5	0	21.7800	20.40000	9.30000	37.00000
				4807	5	0	17.2900	16.20000	8.90000	27.45000
				4817	5	0	22.5700	21.60000	16.40000	31.75000
				4833	5	3	15.2000	10.00000	10.00000	34.00000
				4834	5	0	73.0600	77.90000	42.00000	90.70000
				4871	5	0	102.5800	101.00000	86.60000	117.50000
				4904	5	5	10.0000	10.00000	10.00000	10.00000
				--ALL--	48	8	57.2270	35.50000	8.90000	182.00000
SFF	TOTAL SUSPENDED SOLIDS	C009	Existing	1197A	3	0	26.6666	28.00000	20.00000	32.00000
				4011	3	0	26.6666	28.00000	22.00000	30.00000
				4079	3	2	6.3333	5.00000	5.00000	9.00000
				4277	5	0	14.4000	14.00000	10.00000	17.00000
				4384	5	0	45.6000	50.00000	23.00000	68.00000
				4415	3	3	1.0000	1.00000	1.00000	1.00000
				4417	5	1	7.0000	7.00000	2.00000	12.00000
				4438	3	0	6.6666	7.00000	5.00000	8.00000
				4470	5	0	17.7000	14.50000	10.00000	32.00000
				4737	5	0	24.0000	20.00000	12.50000	38.00000
				4761	3	0	22.0000	24.00000	17.00000	25.00000
				4762	5	0	14.4000	14.00000	13.00000	16.00000
				4807	5	1	8.3000	7.50000	4.00000	16.00000
				4811	5	3	4.0000	4.00000	4.00000	4.00000
				4817	5	2	11.8000	8.00000	4.00000	21.00000
				4833	5	0	8.4000	6.50000	5.50000	17.50000
				4834	5	2	14.6000	7.00000	4.00000	44.00000
				4871	5	0	5.8000	6.00000	4.00000	8.00000
				4904	5	2	5.7000	4.50000	4.00000	8.50000
				--ALL--	83	16	14.1747	10.00000	1.00000	68.00000
			New	4807	5	0	22.0000	23.00000	13.00000	30.00000
				4882	5	4	4.1000	4.00000	4.00000	4.50000
				--ALL--	10	4	13.0500	8.75000	4.00000	30.00000
SFF	ZINC	7440666	Existing	1197A	2	1	0.0305	0.03050	0.01999	0.04100
				4277	5	0	0.0276	0.02180	0.01260	0.04690
				4415	3	0	0.2229	0.07039	0.05759	0.54100
				4417	5	0	0.1651	0.17299	0.07779	0.21299
				4470	5	0	1.3805	1.35062	0.98581	1.79270
				4737	5	0	0.1375	0.08816	0.05569	0.38565
				4761	3	0	0.1591	0.14000	0.13600	0.20149
				4762	5	0	0.2007	0.17499	0.16300	0.26899
				4807	5	0	0.1290	0.13750	0.05070	0.19400
				4811	5	0	0.0529	0.05214	0.04684	0.06289
				4817	5	0	0.3329	0.30950	0.19599	0.44749
				4871	5	0	0.1649	0.14100	0.12600	0.21500
				4904	5	4	0.0156	0.01499	0.01499	0.01844
				--ALL--	58	5	0.2455	0.13825	0.01260	1.79270
			New	4807	5	1	0.0402	0.04520	0.00020	0.05840
				4854	5	3	0.0121	0.00800	0.00800	0.01965
				4882	5	1	0.0364	0.02955	0.01100	0.06715
				--ALL--	15	5	0.0296	0.02840	0.00020	0.06715

## Appendix C. Facility-level Long-term Averages and Variability Factors

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
ANO	ALUMINUM	Existing	4856	ANO	5	0	.	3.37400	1.98	1.29
			4869	ANO	5	0	.	1.66350	4.48	1.85
ANO	MANGANESE	Existing	4762	GENL	5	0	.	0.13878	1.64	1.20
			4807	GENL	5	0	.	0.04963	2.08	1.31
			4871	GENL	5	0	.	0.09170	1.35	1.11
			4904	GENL	5	0	.	0.01327	2.22	1.35
ANO	NICKEL	Existing	1197A	GENL	3	0	.	0.55667	.	.
			4277	GENL	5	0	.	0.17819	1.18	1.06
			4438	GENL	3	0	.	0.41466	.	.
			4470	GENL	5	0	.	0.23126	1.95	1.28
			4761	GENL	3	0	.	0.26600	.	.
			4762	GENL	5	0	.	0.20579	2.11	1.32
			4807	GENL	5	0	.	0.26379	2.24	1.35
			4811	GENL	5	1	0.01799	0.04700	1.93	1.36
			4817	GENL	5	0	.	0.03442	2.16	1.33
			4833	GENL	5	4	0.01600	0.05120	.	.
			4834	GENL	5	0	.	0.33040	2.26	1.35
			4847	GENL	5	0	.	0.05452	3.16	1.56
			4871	GENL	5	0	.	0.65159	1.41	1.13
			4904	GENL	5	5	0.02600	0.02600	.	.
6048	GENL	5	0	.	0.34640	3.15	1.56			
ANO	OIL AND GREASE (AS HEM)	Existing	4737	GENL	5	0	.	13.60000	1.51	1.16
			4871	GENL	5	5	6.13633	6.13633	.	.
ANO	TOTAL SUSPENDED SOLIDS	Existing	4856	ANO	5	0	.	7.60000	1.74	1.22
			4869	ANO	5	2	4.00000	16.40000	6.92	2.38
ANO	ZINC	Existing	1197A	GENL	2	1	0.01999	0.03050	.	.
			4277	GENL	5	0	.	0.02764	3.30	1.59
			4415	GENL	3	0	.	0.22299	.	.
			4417	GENL	5	0	.	0.16515	2.41	1.39
			4470	GENL	5	0	.	1.38057	1.69	1.21
			4737	GENL	5	0	.	0.13753	4.45	1.84
			4761	GENL	3	0	.	0.15916	.	.
			4762	GENL	5	0	.	0.20079	1.60	1.19
			4807	GENL	5	0	.	0.12903	3.00	1.53
			4811	GENL	5	0	.	0.05295	1.32	1.10
			4817	GENL	5	0	.	0.33290	2.02	1.29
			4871	GENL	5	0	.	0.16490	1.71	1.22
			4904	GENL	5	4	0.01499	0.01568	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
DRYD	OIL AND GREASE (AS HEM)	Existing	4891	DRYD	5	3	5.48333	6.22000	1.71	1.19
			4892	DRYD	5	0	.	11.76667	1.82	1.25
DRYD	TOTAL SUSPENDED SOLIDS	Existing	4805	DRYD	2	0	.	29.50000	.	.
			4891	DRYD	5	0	.	11.60000	3.13	1.55
			4892	DRYD	5	0	.	55.00000	2.34	1.37

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
GENL	*1,1-DICHLOROETHYLENE	Existing	4737	GENL	5	5	0.00999	0.00999	.	.
GENL	*1,1-DICHLOROETHYLENE	New	4737	GENL	5	5	0.00999	0.00999	.	.
GENL	*1-METHYLFLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*1-METHYLFLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*1-METHYLPHENANTHRENE	Existing	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
GENL	*1-METHYLPHENANTHRENE	New	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
GENL	*2-ISOPROPYLNAPHTHALENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*2-ISOPROPYLNAPHTHALENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*2-METHYLNAPHTHALENE	Existing	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
GENL	*2-METHYLNAPHTHALENE	New	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
GENL	*3,6-DIMETHYLPHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*3,6-DIMETHYLPHENANTHRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*4-CHLORO-M-CRESOL	Existing	4876	OILY	5	0	.	0.52609	6.55	2.31
GENL	*4-CHLORO-M-CRESOL	New	4876	OILY	5	0	.	0.52609	6.55	2.31
GENL	*ACENAPHTHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*ACENAPHTHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*BENZOIC ACID	Existing	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
GENL	*BENZOIC ACID	New	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
GENL	*BIPHENYL	Existing	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
GENL	*BIPHENYL	New	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
GENL	*BIS(2-ETHYLHEXYL) PHTHAL	Existing	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
GENL	*BIS(2-ETHYLHEXYL) PHTHAL	New	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
GENL	*CARBON DISULFIDE	Existing	4867	PWB	5	0	.	0.74799	4.55	1.87
GENL	*CARBON DISULFIDE	New	4867	PWB	5	0	.	0.74799	4.55	1.87
GENL	*CHLOROFORM	Existing	4788	MFJ	3	0	.	0.19603	.	.
GENL	*CHLOROFORM	New	4788	MFJ	3	0	.	0.19603	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
GENL	*DIBENZOTHIOPHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*DIBENZOTHIOPHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*ETHYLBENZENE	Existing	4851	OILY	5	4	0.00999	0.01032	.	.
GENL	*ETHYLBENZENE	New	4851	OILY	5	4	0.00999	0.01032	.	.
GENL	*FLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*FLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*N-HEXADECANE	Existing	4737	GENL	5	5	0.01899	0.01899	.	.
			4805	DRYD	2	2	0.01000	0.01000	.	.
			4851	OILY	5	4	0.01022	0.01140	.	.
			4872	OILY	3	2	0.00999	0.01210	.	.
			4876	OILY	5	5	0.00999	0.00999	.	.
			4877	OILY	5	4	0.00999	0.01098	.	.
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*N-HEXADECANE	New	4737	GENL	5	5	0.01899	0.01899	.	.
			4805	DRYD	2	2	0.01000	0.01000	.	.
			4851	OILY	5	4	0.01022	0.01140	.	.
			4872	OILY	3	2	0.00999	0.01210	.	.
			4876	OILY	5	5	0.00999	0.00999	.	.
			4877	OILY	5	4	0.00999	0.01098	.	.
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*N-TETRADECANE	Existing	4471	OILY	4	1	0.00999	0.02647	4.15	1.80
			4737	GENL	5	5	0.01899	0.01899	.	.
			4805	DRYD	2	2	0.01000	0.01000	.	.
			4851	OILY	5	1	0.01059	0.01987	3.22	1.58
			4876	OILY	5	5	0.00999	0.00999	.	.
			4892	DRYD	5	3	0.01000	0.01719	5.81	2.10
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*N-TETRADECANE	New	4471	OILY	4	1	0.00999	0.02647	4.15	1.80
			4737	GENL	5	5	0.01899	0.01899	.	.
			4805	DRYD	2	2	0.01000	0.01000	.	.
			4851	OILY	5	1	0.01059	0.01987	3.22	1.58
			4876	OILY	5	5	0.00999	0.00999	.	.
			4892	DRYD	5	3	0.01000	0.01719	5.81	2.10
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*NAPHTHALENE	Existing	4851	OILY	5	0	.	0.04658	1.92	1.27
GENL	*NAPHTHALENE	New	4851	OILY	5	0	.	0.04658	1.92	1.27
GENL	*P-CYMENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*P-CYMENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*PHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*PHENANTHRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
			6179	RRL	3	3	0.01000	0.01000	.	.
GENL	*PYRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
GENL	*PYRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.



## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
GENL	*TOLUENE	Existing	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
GENL	*TOLUENE	New	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
GENL	AMENABLE CYANIDE		4807	GENL	5	5	0.01999	0.01999	.	.
			4817	GENL	4	1	0.20000	0.54125	1.83	1.37
			4828	MFJ	5	0	.	0.06400	4.20	1.79
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	3	0.00999	0.01012	.	.
			4904	GENL	5	0	.	0.11900	2.14	1.33
			6048	GENL	5	2	0.00499	0.01619	3.70	1.76
			6186	MFJ	5	0	.	0.06179	5.12	1.99
GENL	CADMIUM	Existing	1197A	GENL	2	0	.	0.07050	.	.
			4277	GENL	5	0	.	0.17378	2.59	1.43
			4415	GENL	3	2	0.00499	0.00516	.	.
			4460	GENL	3	0	.	0.03493	.	.
			6048	GENL	5	0	.	0.89099	1.37	1.12
GENL	CADMIUM	New	4882	GENL	5	1	0.00500	0.00707	1.81	1.25
GENL	CHROMIUM	Existing	1197A	GENL	3	0	.	0.63767	.	.
			4011	GENL	3	0	.	0.87066	.	.
			4079	GENL	3	0	.	0.97033	.	.
			4310	GENL	3	0	.	2.27167	.	.
			4330	GENL	5	0	.	0.06674	2.65	1.45
			4384	GENL	5	0	.	0.58489	1.68	1.21
			4415	GENL	3	0	.	0.04880	.	.
			4417	GENL	5	0	.	0.01876	2.47	1.41
			4438	GENL	3	0	.	0.09266	.	.
			4460	GENL	3	0	.	1.17467	.	.
			4470	GENL	5	0	.	0.07731	1.73	1.22
			4811	GENL	5	3	0.00800	0.00855	1.19	1.07
			4817	GENL	5	0	.	0.09254	6.02	2.19
			4833	GENL	5	0	.	0.06793	3.37	1.61
			4847	GENL	5	0	.	0.30159	2.73	1.46
4871	GENL	5	4	0.00999	0.01012	.	.			
4904	GENL	5	0	.	0.01475	1.91	1.27			
GENL	CHROMIUM	New	4807	GENL	5	0	.	0.03580	3.95	1.74
			4854	GENL	5	0	.	0.01401	1.69	1.21
			4882	GENL	5	0	.	0.13982	8.61	2.80
GENL	COPPER	Existing	4277	GENL	5	0	.	0.55920	1.73	1.22
			4737	GENL	5	0	.	0.17525	8.73	2.82
			4806	GENL	5	0	.	0.60919	3.58	1.66
			4807	GENL	5	0	.	1.04930	2.98	1.52
			4817	GENL	5	0	.	0.23829	2.50	1.41
			4833	GENL	5	0	.	0.12827	1.63	1.19
			4834	GENL	5	0	.	0.06035	1.81	1.24
			4847	GENL	5	0	.	0.08056	3.05	1.54
			4904	GENL	5	0	.	0.04624	2.03	1.30
GENL	COPPER	New	4807	GENL	5	0	.	0.07392	2.78	1.48
			4854	GENL	5	2	0.00800	0.08399	10.79	3.16
			4882	GENL	5	0	.	0.02569	3.91	1.73
GENL	CYANIDE		4274	GENL	3	3	0.00999	0.00999	.	.
			4279	MFJ	5	5	0.00999	0.00999	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF			
GENL	CYANIDE		4384	GENL	5	0	.	0.77039	1.94	1.27			
			4460A	GENL	1	0	.	0.01999	.	.			
			4807	GENL	5	2	0.01999	0.02719	2.60	1.41			
			4817	GENL	5	2	0.11000	0.44300	2.18	1.60			
			4828	MFJ	5	0	.	0.09189	2.80	1.48			
			4834	GENL	5	5	0.01999	0.01999	.	.			
			4847	GENL	4	2	0.00999	0.01237	2.63	1.39			
			4891	DRYD	5	0	.	0.08829	2.92	1.51			
			4904	GENL	5	0	.	0.25709	2.74	1.47			
			6048	GENL	5	0	.	0.20700	1.66	1.20			
			6186	MFJ	5	0	.	0.19599	1.67	1.20			
			GENL	LEAD	Existing	1197A	GENL	3	1	0.20000	1.88000	.	.
						4761	GENL	3	3	0.01200	0.01200	.	.
4762	GENL	5				5	0.02480	0.02480	.	.			
4834	GENL	5				1	0.01600	0.02054	1.55	1.18			
4871	GENL	5				0	.	0.00942	1.88	1.26			
4855	PWB	5				5	0.02100	0.02100	.	.			
GENL	MANGANESE	Existing	4762	GENL	5	0	.	0.13878	1.64	1.20			
			4807	GENL	5	0	.	0.04963	2.08	1.31			
			4871	GENL	5	0	.	0.09170	1.35	1.11			
			4904	GENL	5	0	.	0.01327	2.22	1.35			
			4807	GENL	5	0	.	0.12990	2.21	1.34			
GENL	MOLYBDENUM	Existing	4806	GENL	5	0	.	0.72319	2.84	1.49			
			4904	GENL	5	0	.	0.03153	1.32	1.11			
GENL	MOLYBDENUM	New	4806	GENL	5	0	.	0.72319	2.84	1.49			
			4904	GENL	5	0	.	0.03153	1.32	1.11			
GENL	NICKEL	Existing	1197A	GENL	3	0	.	0.55667	.	.			
			4277	GENL	5	0	.	0.17819	1.18	1.06			
			4438	GENL	3	0	.	0.41466	.	.			
			4470	GENL	5	0	.	0.23126	1.95	1.28			
			4761	GENL	3	0	.	0.26600	.	.			
			4762	GENL	5	0	.	0.20579	2.11	1.32			
			4807	GENL	5	0	.	0.26379	2.24	1.35			
			4811	GENL	5	1	0.01799	0.04700	1.93	1.36			
			4817	GENL	5	0	.	0.03442	2.16	1.33			
			4833	GENL	5	4	0.01600	0.05120	.	.			
			4834	GENL	5	0	.	0.33040	2.26	1.35			
			4847	GENL	5	0	.	0.05452	3.16	1.56			
			4871	GENL	5	0	.	0.65159	1.41	1.13			
			4904	GENL	5	5	0.02600	0.02600	.	.			
			6048	GENL	5	0	.	0.34640	3.15	1.56			
			GENL	NICKEL	New	4807	GENL	5	0	.	0.75120	2.75	1.47
4854	GENL	5				2	0.01600	0.03434	6.80	2.33			
GENL	OIL AND GREASE (AS HEM)	Existing	4737	GENL	5	0	.	13.60000	1.51	1.16			
			4871	GENL	5	5	6.13633	6.13633	.	.			
GENL	SILVER	Existing	1197A	GENL	3	0	.	0.33933	.	.			
			4277	GENL	5	3	0.00499	0.01035	5.89	2.13			
			4807	GENL	5	1	0.00060	0.03198	4.02	1.84			
			4817	GENL	5	0	.	0.06180	4.08	1.76			
GENL	SILVER	New	4807	GENL	5	2	0.00060	0.01558	2.94	1.79			

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
GENL	TIN	Existing	4817	GENL	5	0	.	0.05998	3.85	1.72
			4834	GENL	5	0	.	0.81520	2.14	1.32
GENL	TIN	New	4807	GENL	5	5	0.01840	0.01840	.	.
			4855	PWB	5	0	.	.	1.58	1.18
GENL	TOTAL ORGANIC CARBON (TOC	Existing	4737	GENL	5	0	.	86.50000	1.61	1.19
			4761	GENL	3	0	.	49.66667	.	.
			4762	GENL	5	0	.	170.60000	1.22	1.07
			4806	GENL	5	0	.	21.78000	3.20	1.57
			4807	GENL	5	0	.	17.29000	2.80	1.48
			4817	GENL	5	0	.	22.57000	1.82	1.24
			4833	GENL	5	3	10.00000	15.20000	5.15	1.95
			4834	GENL	5	0	.	73.06000	1.97	1.28
			4871	GENL	5	0	.	102.58000	1.37	1.12
			4904	GENL	5	5	10.00000	10.00000	.	.
			GENL	TOTAL ORGANIC CARBON (TOC	New	4737	GENL	5	0	.
4761	GENL	3				0	.	49.66667	.	.
4762	GENL	5				0	.	170.60000	1.22	1.07
4806	GENL	5				0	.	21.78000	3.20	1.57
4807	GENL	5				0	.	17.29000	2.80	1.48
4817	GENL	5				0	.	22.57000	1.82	1.24
4833	GENL	5				3	10.00000	15.20000	5.15	1.95
4834	GENL	5				0	.	73.06000	1.97	1.28
4871	GENL	5				0	.	102.58000	1.37	1.12
4904	GENL	5				5	10.00000	10.00000	.	.
GENL	TOTAL SULFIDE	Existing				4877	OILY	5	0	.
GENL	TOTAL SULFIDE	New	4877	OILY	5	0	.	7.10000	4.25	1.80
GENL	TOTAL SUSPENDED SOLIDS	Existing	1197A	GENL	3	0	.	26.66667	.	.
			4011	GENL	3	0	.	26.66667	.	.
			4079	GENL	3	2	5.00000	6.33333	.	.
			4277	GENL	5	0	.	14.40000	1.62	1.19
			4384	GENL	5	0	.	45.60000	2.52	1.42
			4415	GENL	3	3	1.00000	1.00000	.	.
			4417	GENL	5	1	2.00000	7.00000	3.11	1.60
			4438	GENL	3	0	.	6.66667	.	.
			4470	GENL	5	0	.	17.70000	2.87	1.50
			4737	GENL	5	0	.	24.00000	2.84	1.49
			4761	GENL	3	0	.	22.00000	.	.
			4762	GENL	5	0	.	14.40000	1.27	1.09
			4807	GENL	5	1	4.00000	8.30000	2.67	1.47
			4811	GENL	5	3	4.00000	4.00000	.	.
			4817	GENL	5	2	6.00000	11.80000	3.54	1.67
			4833	GENL	5	0	.	8.40000	2.74	1.47
			4834	GENL	5	2	4.00000	14.60000	7.06	2.40
			4871	GENL	5	0	.	5.80000	2.00	1.29
			4904	GENL	5	2	4.00000	5.70000	2.33	1.37
GENL	TOTAL SUSPENDED SOLIDS	New	4807	GENL	5	0	.	22.00000	2.10	1.31
			4882	GENL	5	4	4.00000	4.10000	.	.
GENL	ZINC	Existing	1197A	GENL	2	1	0.01999	0.03050	.	.
			4277	GENL	5	0	.	0.02764	3.30	1.59
			4415	GENL	3	0	.	0.22299	.	.
			4417	GENL	5	0	.	0.16515	2.41	1.39
			4470	GENL	5	0	.	1.38057	1.69	1.21
			4737	GENL	5	0	.	0.13753	4.45	1.84

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
GENL	ZINC	Existing	4761	GENL	3	0	.	0.15916	.	.
			4762	GENL	5	0	.	0.20079	1.60	1.19
			4807	GENL	5	0	.	0.12903	3.00	1.53
			4811	GENL	5	0	.	0.05295	1.32	1.10
			4817	GENL	5	0	.	0.33290	2.02	1.29
			4871	GENL	5	0	.	0.16490	1.71	1.22
			4904	GENL	5	4	0.01499	0.01568	.	.
GENL	ZINC	New	4807	GENL	5	1	0.00020	0.04024	1.87	1.49
			4854	GENL	5	3	0.00800	0.01213	1.84	1.36
			4882	GENL	5	1	0.01100	0.03644	2.70	1.52

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
MFJ	*1,1-DICHLOROETHYLENE	Existing	4737	GENL	5	5	0.00999	0.00999	.	.
MFJ	*1,1-DICHLOROETHYLENE	New	4737	GENL	5	5	0.00999	0.00999	.	.
MFJ	*1-METHYLFLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*1-METHYLFLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*1-METHYLPHENANTHRENE	Existing	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
MFJ	*1-METHYLPHENANTHRENE	New	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
MFJ	*2-ISOPROPYLNAPHTHALENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*2-ISOPROPYLNAPHTHALENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*2-METHYLNAPHTHALENE	Existing	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
MFJ	*2-METHYLNAPHTHALENE	New	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
MFJ	*3,6-DIMETHYLPHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*3,6-DIMETHYLPHENANTHRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*4-CHLORO-M-CRESOL	Existing	4876	OILY	5	0	.	0.52609	6.55	2.31
MFJ	*4-CHLORO-M-CRESOL	New	4876	OILY	5	0	.	0.52609	6.55	2.31
MFJ	*ACENAPHTHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*ACENAPHTHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*BENZOIC ACID	Existing	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
MFJ	*BENZOIC ACID	New	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
MFJ	*BIPHENYL	Existing	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
MFJ	*BIPHENYL	New	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
MFJ	*BIS(2-ETHYLHEXYL) PHTHAL	Existing	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
MFJ	*BIS(2-ETHYLHEXYL) PHTHAL	New	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
MFJ	*CARBON DISULFIDE	Existing	4867	PWB	5	0	.	0.74799	4.55	1.87
MFJ	*CARBON DISULFIDE	New	4867	PWB	5	0	.	0.74799	4.55	1.87
MFJ	*CHLOROFORM	Existing	4788	MFJ	3	0	.	0.19603	.	.
MFJ	*CHLOROFORM	New	4788	MFJ	3	0	.	0.19603	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
MFJ	*DIBENZOTHIOPHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*DIBENZOTHIOPHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*ETHYLBENZENE	Existing	4851	OILY	5	4	0.00999	0.01032	.	.
MFJ	*ETHYLBENZENE	New	4851	OILY	5	4	0.00999	0.01032	.	.
MFJ	*FLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*FLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*N-HEXADECANE	Existing	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 4 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01098 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01098 0.01000	.	.
MFJ	*N-HEXADECANE	New	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 4 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01098 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01098 0.01000	.	.
MFJ	*N-TETRADECANE	Existing	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 . . 3.22 . 5.81 .	1.80 . . 1.58 . 2.10 .
MFJ	*N-TETRADECANE	New	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 . . 3.22 . 5.81 .	1.80 . . 1.58 . 2.10 .
MFJ	*NAPHTHALENE	Existing	4851	OILY	5	0	.	0.04658	1.92	1.27
MFJ	*NAPHTHALENE	New	4851	OILY	5	0	.	0.04658	1.92	1.27
MFJ	*P-CYMENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*P-CYMENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*PHENANTHRENE	Existing	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
MFJ	*PHENANTHRENE	New	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
MFJ	*PYRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
MFJ	*PYRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
MFJ	*TOLUENE	Existing	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
MFJ	*TOLUENE	New	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
MFJ	AMENABLE CYANIDE		4807	GENL	5	5	0.01999	0.01999	.	.
			4817	GENL	4	1	0.20000	0.54125	1.83	1.37
			4828	MFJ	5	0	.	0.06400	4.20	1.79
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	3	0.00999	0.01012	.	.
			4904	GENL	5	0	.	0.11900	2.14	1.33
			6048	GENL	5	2	0.00499	0.01619	3.70	1.76
			6186	MFJ	5	0	.	0.06179	5.12	1.99
MFJ	CADMIUM	Existing	4279	MFJ	5	0	.	0.13687	5.75	2.13
			4788	MFJ	5	0	.	0.02147	3.16	1.56
			6178	MFJ	3	0	.	0.03512	.	.
			6187	MFJ	3	0	.	0.05516	.	.
MFJ	CADMIUM	New	4882	GENL	5	1	0.00500	0.00707	1.81	1.25
MFJ	CHROMIUM	Existing	4278	MFJ	4	0	.	0.01653	4.45	1.85
			4279	MFJ	5	0	.	0.49232	3.25	1.58
			4788	MFJ	5	0	.	0.25720	5.12	1.99
			4893	MFJ	2	0	.	0.25400	.	.
			6178	MFJ	3	0	.	0.34966	.	.
			6187	MFJ	3	0	.	0.34799	.	.
MFJ	CHROMIUM	New	4807	GENL	5	0	.	0.03580	3.95	1.74
			4854	GENL	5	0	.	0.01401	1.69	1.21
			4882	GENL	5	0	.	0.13982	8.61	2.80
MFJ	COPPER	Existing	4278	MFJ	4	0	.	0.12810	5.79	2.14
			4279	MFJ	5	0	.	0.10491	3.41	1.62
			4883	MFJ	5	0	.	0.36830	2.56	1.42
			4894	MFJ	2	0	.	0.35824	.	.
			6178	MFJ	3	0	.	0.43766	.	.
			6187	MFJ	3	0	.	0.30183	.	.
MFJ	COPPER	New	4807	GENL	5	0	.	0.07392	2.78	1.48
			4854	GENL	5	2	0.00800	0.08399	10.79	3.16
			4882	GENL	5	0	.	0.02569	3.91	1.73
MFJ	CYANIDE		4274	GENL	3	3	0.00999	0.00999	.	.
			4279	MFJ	5	5	0.00999	0.00999	.	.
			4384	GENL	5	0	.	0.77039	1.94	1.27
			4460A	GENL	1	0	.	0.01999	.	.
			4807	GENL	5	2	0.01999	0.02719	2.60	1.41
			4817	GENL	5	2	0.11000	0.44300	2.18	1.60
			4828	MFJ	5	0	.	0.09189	2.80	1.48
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	2	0.00999	0.01237	2.63	1.39
			4891	DRYD	5	0	.	0.08829	2.92	1.51
			4904	GENL	5	0	.	0.25709	2.74	1.47
			6048	GENL	5	0	.	0.20700	1.66	1.20
6186	MFJ	5	0	.	0.19599	1.67	1.20			
MFJ	LEAD	Existing	4788	MFJ	5	0	.	0.17709	1.73	1.22
			6178	MFJ	3	0	.	0.05333	.	.
			6187	MFJ	3	0	.	0.06800	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
MFJ	LEAD	New	4855	PWB	5	5	0.02100	0.02100	.	.
MFJ	MANGANESE	Existing	4278	MFJ	4	0	.	0.15850	1.58	1.18
			4279	MFJ	5	0	.	0.08139	8.27	2.71
			6178	MFJ	3	0	.	0.01699	.	.
			6187	MFJ	3	0	.	0.00478	.	.
MFJ	MANGANESE	New	4807	GENL	5	0	.	0.12990	2.21	1.34
MFJ	MOLYBDENUM	Existing	4806	GENL	5	0	.	0.72319	2.84	1.49
			4904	GENL	5	0	.	0.03153	1.32	1.11
MFJ	MOLYBDENUM	New	4806	GENL	5	0	.	0.72319	2.84	1.49
			4904	GENL	5	0	.	0.03153	1.32	1.11
MFJ	NICKEL	Existing	4278	MFJ	4	0	.	0.70025	4.36	1.83
			4279	MFJ	5	0	.	0.38127	5.68	2.12
			4788	MFJ	5	0	.	0.65010	2.09	1.31
			4883	MFJ	5	0	.	0.34019	2.71	1.46
			4894	MFJ	2	0	.	0.26925	.	.
MFJ	NICKEL	New	4807	GENL	5	0	.	0.75120	2.75	1.47
			4854	GENL	5	2	0.01600	0.03434	6.80	2.33
MFJ	OIL AND GREASE (AS HEM)	New	4737	GENL	5	0	.	13.60000	1.51	1.16
			4871	GENL	5	5	6.13633	6.13633	.	.
MFJ	SILVER	Existing	4788	MFJ	5	1	0.00499	0.01812	4.42	1.86
			6178	MFJ	3	0	.	0.37500	.	.
			6187	MFJ	3	0	.	0.03233	.	.
MFJ	SILVER	New	4807	GENL	5	2	0.00060	0.01558	2.94	1.79
MFJ	TIN	Existing	4788	MFJ	5	0	.	1.21340	1.49	1.15
MFJ	TIN	New	4807	GENL	5	5	0.01840	0.01840	.	.
			4855	PWB	5	0	.	.	1.58	1.18
MFJ	TOTAL ORGANIC CARBON (TOC	Existing	4788	MFJ	5	0	.	50.40000	1.55	1.17
MFJ	TOTAL ORGANIC CARBON (TOC	New	4788	MFJ	5	0	.	50.40000	1.55	1.17
MFJ	TOTAL SULFIDE	Existing	4877	OILY	5	0	.	7.10000	4.25	1.80
MFJ	TOTAL SULFIDE	New	4877	OILY	5	0	.	7.10000	4.25	1.80
MFJ	TOTAL SUSPENDED SOLIDS	New	4807	GENL	5	0	.	22.00000	2.10	1.31
			4882	GENL	5	4	4.00000	4.10000	.	.
MFJ	ZINC	Existing	4278	MFJ	4	2	0.01099	0.01784	1.82	1.35
			4279	MFJ	5	0	.	1.98898	6.54	2.31
			4788	MFJ	5	0	.	0.01840	2.76	1.47
			4883	MFJ	5	0	.	0.23249	1.85	1.25
			4893	MFJ	2	0	.	0.21967	.	.
			4894	MFJ	2	0	.	0.18475	.	.
			6178	MFJ	3	0	.	0.02646	.	.
			6187	MFJ	3	0	.	0.01868	.	.
			MFJ	ZINC	New	4807	GENL	5	1	0.00020
4854	GENL	5				3	0.00800	0.01213	1.84	1.36
4882	GENL	5				1	0.01100	0.03644	2.70	1.52

\* Cases where LTA is missing and VF is not indicate only VF transfer.



## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
OILY	*1,1-DICHLOROETHYLENE	Existing	4737	GENL	5	5	0.00999	0.00999	.	.
OILY	*1-METHYLFLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*1-METHYLPHENANTHRENE	Existing	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
OILY	*2-ISOPROPYLNAPHTHALENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*2-METHYLNAPHTHALENE	Existing	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
OILY	*3,6-DIMETHYLPHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*4-CHLORO-M-CRESOL	Existing	4876	OILY	5	0	.	0.52609	6.55	2.31
OILY	*ACENAPHTHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*BENZOIC ACID	Existing	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
OILY	*BIPHENYL	Existing	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
OILY	*BIS(2-ETHYLHEXYL) PHTHAL	Existing	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
OILY	*CARBON DISULFIDE	Existing	4867	PWB	5	0	.	0.74799	4.55	1.87
OILY	*CHLOROFORM	Existing	4788	MFJ	3	0	.	0.19603	.	.
OILY	*DIBENZOTHIOPHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*ETHYLBENZENE	Existing	4851	OILY	5	4	0.00999	0.01032	.	.
OILY	*FLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*N-HEXADECANE	Existing	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01000	. . . . . . .	. . . . . . .
OILY	*N-TETRADECANE	Existing	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 . . 3.22 . 5.81 .	1.80 . . 1.58 . 2.10 .
OILY	*NAPHTHALENE	Existing	4851	OILY	5	0	.	0.04658	1.92	1.27
OILY	*P-CYMENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
OILY	*PHENANTHRENE	Existing	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
OILY	*PYRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
OILY	*TOLUENE	Existing	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
OILY	OIL AND GREASE (AS HEM)	Existing	4851	OILY	5	0	.	14.99750	1.40	1.13
			4877	OILY	4	0	.	18.75000	1.72	1.22
OILY	TOTAL ORGANIC CARBON (TOC	Existing	4851	OILY	5	0	.	295.20000	2.04	1.30
			4872	OILY	3	0	.	188.16667	.	.
			4876	OILY	5	0	.	758.20000	3.26	1.58
			4877	OILY	5	0	.	267.50000	1.45	1.14
OILY	TOTAL SULFIDE	Existing	4877	OILY	5	0	.	7.10000	4.25	1.80
OILY	TOTAL SUSPENDED SOLIDS	Existing	4471	OILY	4	0	.	45.50000	7.73	2.59
			4851	OILY	5	0	.	41.20000	1.47	1.15
			4872	OILY	3	0	.	11.83333	.	.
			4876	OILY	5	0	.	15.00000	1.86	1.26
			4877	OILY	4	0	.	19.50000	1.80	1.24

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
PWB	*1,1-DICHLOROETHYLENE	Existing	4737	GENL	5	5	0.00999	0.00999	.	.
PWB	*1,1-DICHLOROETHYLENE	New	4737	GENL	5	5	0.00999	0.00999	.	.
PWB	*1-METHYLFLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*1-METHYLFLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*1-METHYLPHENANTHRENE	Existing	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
PWB	*1-METHYLPHENANTHRENE	New	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
PWB	*2-ISOPROPYLNAPHTHALENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*2-ISOPROPYLNAPHTHALENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*2-METHYLNAPHTHALENE	Existing	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
PWB	*2-METHYLNAPHTHALENE	New	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
PWB	*3,6-DIMETHYLPHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*3,6-DIMETHYLPHENANTHRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*4-CHLORO-M-CRESOL	Existing	4876	OILY	5	0	.	0.52609	6.55	2.31
PWB	*4-CHLORO-M-CRESOL	New	4876	OILY	5	0	.	0.52609	6.55	2.31
PWB	*ACENAPHTHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*ACENAPHTHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*BENZOIC ACID	Existing	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
PWB	*BENZOIC ACID	New	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
PWB	*BIPHENYL	Existing	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
PWB	*BIPHENYL	New	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
PWB	*BIS(2-ETHYLHEXYL) PHTHAL	Existing	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
PWB	*BIS(2-ETHYLHEXYL) PHTHAL	New	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
PWB	*CARBON DISULFIDE	Existing	4867	PWB	5	0	.	0.74799	4.55	1.87
PWB	*CARBON DISULFIDE	New	4867	PWB	5	0	.	0.74799	4.55	1.87
PWB	*CHLOROFORM	Existing	4788	MFJ	3	0	.	0.19603	.	.
PWB	*CHLOROFORM	New	4788	MFJ	3	0	.	0.19603	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
PWB	*DIBENZOTHIOPHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*DIBENZOTHIOPHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*ETHYLBENZENE	Existing	4851	OILY	5	4	0.00999	0.01032	.	.
PWB	*ETHYLBENZENE	New	4851	OILY	5	4	0.00999	0.01032	.	.
PWB	*FLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*FLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*N-HEXADECANE	Existing	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 4 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01000	.	.
PWB	*N-HEXADECANE	New	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 4 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01000	.	.
PWB	*N-TETRADECANE	Existing	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 . . 3.22 . 5.81 .	1.80 . . 1.58 . 2.10 .
PWB	*N-TETRADECANE	New	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 . . 3.22 . 5.81 .	1.80 . . 1.58 . 2.10 .
PWB	*NAPHTHALENE	Existing	4851	OILY	5	0	.	0.04658	1.92	1.27
PWB	*NAPHTHALENE	New	4851	OILY	5	0	.	0.04658	1.92	1.27
PWB	*P-CYMENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*P-CYMENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*PHENANTHRENE	Existing	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
PWB	*PHENANTHRENE	New	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
PWB	*PYRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
PWB	*PYRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
PWB	*TOLUENE	Existing	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
PWB	*TOLUENE	New	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
PWB	AMENABLE CYANIDE		4807	GENL	5	5	0.01999	0.01999	.	.
			4817	GENL	4	1	0.20000	0.54125	1.83	1.37
			4828	MFJ	5	0	.	0.06400	4.20	1.79
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	3	0.00999	0.01012	.	.
			4904	GENL	5	0	.	0.11900	2.14	1.33
			6048	GENL	5	2	0.00499	0.01619	3.70	1.76
			6186	MFJ	5	0	.	0.06179	5.12	1.99
PWB	CHROMIUM	Existing	1197A	GENL	3	0	.	0.63767	.	.
			4011	GENL	3	0	.	0.87066	.	.
			4079	GENL	3	0	.	0.97033	.	.
			4310	GENL	3	0	.	2.27167	.	.
			4330	GENL	5	0	.	0.06674	2.65	1.45
			4384	GENL	5	0	.	0.58489	1.68	1.21
			4415	GENL	3	0	.	0.04880	.	.
			4417	GENL	5	0	.	0.01876	2.47	1.41
			4438	GENL	3	0	.	0.09266	.	.
			4460	GENL	3	0	.	1.17467	.	.
			4470	GENL	5	0	.	0.07731	1.73	1.22
			4811	GENL	5	3	0.00800	0.00855	1.19	1.07
			4817	GENL	5	0	.	0.09254	6.02	2.19
			4833	GENL	5	0	.	0.06793	3.37	1.61
			4847	GENL	5	0	.	0.30159	2.73	1.46
			4871	GENL	5	4	0.00999	0.01012	.	.
			4904	GENL	5	0	.	0.01475	1.91	1.27
PWB	CHROMIUM	New	4807	GENL	5	0	.	0.03580	3.95	1.74
			4854	GENL	5	0	.	0.01401	1.69	1.21
			4882	GENL	5	0	.	0.13982	8.61	2.80
PWB	COPPER	Existing	4277	GENL	5	0	.	0.55920	1.73	1.22
			4737	GENL	5	0	.	0.17525	8.73	2.82
			4806	GENL	5	0	.	0.60919	3.58	1.66
			4807	GENL	5	0	.	1.04930	2.98	1.52
			4817	GENL	5	0	.	0.23829	2.50	1.41
			4833	GENL	5	0	.	0.12827	1.63	1.19
			4834	GENL	5	0	.	0.06035	1.81	1.24
			4847	GENL	5	0	.	0.08056	3.05	1.54
			4904	GENL	5	0	.	0.04624	2.03	1.30
			PWB	COPPER	New	4855	PWB	5	4	0.00180
PWB	CYANIDE		4274	GENL	3	3	0.00999	0.00999	.	.
			4279	MFJ	5	5	0.00999	0.00999	.	.
			4384	GENL	5	0	.	0.77039	1.94	1.27
			4460A	GENL	1	0	.	0.01999	.	.
			4807	GENL	5	2	0.01999	0.02719	2.60	1.41
			4817	GENL	5	2	0.11000	0.44300	2.18	1.60
			4828	MFJ	5	0	.	0.09189	2.80	1.48
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	2	0.00999	0.01237	2.63	1.39
			4891	DRYD	5	0	.	0.08829	2.92	1.51
			4904	GENL	5	0	.	0.25709	2.74	1.47
6048	GENL	5	0	.	0.20700	1.66	1.20			

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
PWB	CYANIDE		6186	MFJ	5	0	.	0.19599	1.67	1.20
PWB	LEAD	Existing	1197A 4761 4762 4834 4871	GENL GENL GENL GENL GENL	3 3 5 5 5	1 3 5 1 0	0.20000 0.01200 0.02480 0.01600 .	1.88000 0.01200 0.02480 0.02054 0.00942	. . . 1.55 1.88	. . . 1.18 1.26
PWB	LEAD	New	4855	PWB	5	5	0.02100	0.02100	.	.
PWB	MANGANESE	Existing	4866	PWB	5	0	.	0.40889	3.10	1.55
PWB	MANGANESE	New	4807	GENL	5	0	.	0.12990	2.21	1.34
PWB	NICKEL	Existing	4866 4867	PWB PWB	5 5	0 0	. .	0.11142 0.04902	1.58 5.81	1.18 2.15
PWB	NICKEL	New	4807 4854	GENL GENL	5 5	0 2	. 0.01600	0.75120 0.03434	2.75 6.80	1.47 2.33
PWB	OIL AND GREASE (AS HEM)	New	4737 4871	GENL GENL	5 5	0 5	. 6.13633	13.60000 6.13633	1.51 .	1.16 .
PWB	TIN	Existing	4866 4867	PWB PWB	5 5	0 1	. 0.01400	0.12013 0.03758	3.17 4.69	1.56 1.90
PWB	TIN	New	4855	PWB	5	0	.	0.05472	1.58	1.18
PWB	TOTAL ORGANIC CARBON (TOC	Existing	4866 4867	PWB PWB	5 5	0 0	. .	18.95000 85.86000	2.53 1.32	1.42 1.11
PWB	TOTAL ORGANIC CARBON (TOC	New	4866 4867	PWB PWB	5 5	0 0	. .	18.95000 85.86000	2.53 1.32	1.42 1.11
PWB	TOTAL SULFIDE	Existing	4877	OILY	5	0	.	7.10000	4.25	1.80
PWB	TOTAL SULFIDE	New	4877	OILY	5	0	.	7.10000	4.25	1.80
PWB	TOTAL SUSPENDED SOLIDS	New	4807 4882	GENL GENL	5 5	0 4	. 4.00000	22.00000 4.10000	2.10 .	1.31 .
PWB	ZINC	Existing	1197A 4277 4415 4417 4470 4737 4761 4762 4807 4811 4817 4871 4904	GENL GENL GENL GENL GENL GENL GENL GENL GENL GENL GENL GENL GENL	2 5 3 5 5 5 3 5 5 5 5 5 5	1 0 0 0 0 0 0 0 0 0 0 0 4	0.01999 . . . . . . . . . . . . 0.01499	0.03050 0.02764 0.22299 0.16515 1.38057 0.13753 0.15916 0.20079 0.12903 0.05295 0.33290 0.16490 0.01568	. 3.30 . 2.41 1.69 4.45 . 1.60 3.00 1.32 2.02 1.71 .	. 1.59 . 1.39 1.21 1.84 . 1.19 1.53 1.10 1.29 1.22 .
PWB	ZINC	New	4807 4854 4882	GENL GENL GENL	5 5 5	1 3 1	0.00020 0.00800 0.01100	0.04024 0.01213 0.03644	1.87 1.84 2.70	1.49 1.36 1.52

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
RRL	BOD 5-DAY (CARBONACEOUS)	Existing	4805	DRYD	2	0	.	.	.	.
			4891	DRYD	5	0	.	.	6.90	2.39
			4892	DRYD	5	0	.	.	6.03	2.19
			6179	RRL	3	0	.	5.16667	.	.
RRL	OIL AND GREASE (AS HEM)	Existing	4891	DRYD	5	3	5.48333	.	1.71	1.19
			4892	DRYD	5	0	.	.	1.82	1.25
			6179	RRL	3	0	.	6.22222	.	.
RRL	TOTAL SUSPENDED SOLIDS	Existing	4805	DRYD	2	0	.	.	.	.
			4891	DRYD	5	0	.	.	3.13	1.55
			4892	DRYD	5	0	.	.	2.34	1.37
			6179	RRL	3	0	.	10.66667	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
SFF	*1,1-DICHLOROETHYLENE	Existing	4737	GENL	5	5	0.00999	0.00999	.	.
SFF	*1,1-DICHLOROETHYLENE	New	4737	GENL	5	5	0.00999	0.00999	.	.
SFF	*1-METHYLFLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*1-METHYLFLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*1-METHYLPHENANTHRENE	Existing	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
SFF	*1-METHYLPHENANTHRENE	New	4805 4851	DRYD OILY	2 5	2 5	0.01000 0.01032	0.01000 0.01032	.	.
SFF	*2-ISOPROPYLNAPHTHALENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*2-ISOPROPYLNAPHTHALENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*2-METHYLNAPHTHALENE	Existing	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
SFF	*2-METHYLNAPHTHALENE	New	4851 6179	OILY RRL	5 3	0 3	. 0.01000	0.04864 0.01000	1.80 .	1.24 .
SFF	*3,6-DIMETHYLPHENANTHRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*3,6-DIMETHYLPHENANTHRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*4-CHLORO-M-CRESOL	Existing	4876	OILY	5	0	.	0.52609	6.55	2.31
SFF	*4-CHLORO-M-CRESOL	New	4876	OILY	5	0	.	0.52609	6.55	2.31
SFF	*ACENAPHTHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*ACENAPHTHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*BENZOIC ACID	Existing	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
SFF	*BENZOIC ACID	New	4817	GENL	4	1	0.05000	0.30052	7.59	2.53
SFF	*BIPHENYL	Existing	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
SFF	*BIPHENYL	New	4851	OILY	5	2	0.00999	0.01239	1.36	1.15
SFF	*BIS(2-ETHYLHEXYL) PHTHAL	Existing	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
SFF	*BIS(2-ETHYLHEXYL) PHTHAL	New	4471 4851 4876 6179	OILY OILY OILY RRL	4 5 5 3	0 5 5 3	. 0.01032 0.00999 0.01000	0.10740 0.01032 0.00999 0.01000	2.36 . . .	1.38 . . .
SFF	*CARBON DISULFIDE	Existing	4867	PWB	5	0	.	0.74799	4.55	1.87
SFF	*CARBON DISULFIDE	New	4867	PWB	5	0	.	0.74799	4.55	1.87
SFF	*CHLOROFORM	Existing	4788	MFJ	3	0	.	0.19603	.	.
SFF	*CHLOROFORM	New	4788	MFJ	3	0	.	0.19603	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.



## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
SFF	*DIBENZOTHIOPHENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*DIBENZOTHIOPHENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*ETHYLBENZENE	Existing	4851	OILY	5	4	0.00999	0.01032	.	.
SFF	*ETHYLBENZENE	New	4851	OILY	5	4	0.00999	0.01032	.	.
SFF	*FLUORENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*FLUORENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*N-HEXADECANE	Existing	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01000	.	.
SFF	*N-HEXADECANE	New	4737 4805 4851 4872 4876 4877 6179	GENL DRYD OILY OILY OILY OILY RRL	5 2 5 3 5 5 3	5 2 4 2 5 4 3	0.01899 0.01000 0.01022 0.00999 0.00999 0.00999 0.01000	0.01899 0.01000 0.01140 0.01210 0.00999 0.01098 0.01000	.	.
SFF	*N-TETRADECANE	Existing	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 .	1.80 .
SFF	*N-TETRADECANE	New	4471 4737 4805 4851 4876 4892 6179	OILY GENL DRYD OILY OILY DRYD RRL	4 5 2 5 5 5 3	1 5 2 1 5 3 3	0.00999 0.01899 0.01000 0.01059 0.00999 0.01000 0.01000	0.02647 0.01899 0.01000 0.01987 0.00999 0.01719 0.01000	4.15 .	1.80 .
SFF	*NAPHTHALENE	Existing	4851	OILY	5	0	.	0.04658	1.92	1.27
SFF	*NAPHTHALENE	New	4851	OILY	5	0	.	0.04658	1.92	1.27
SFF	*P-CYMENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*P-CYMENE	New	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*PHENANTHRENE	Existing	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
SFF	*PHENANTHRENE	New	4851 6179	OILY RRL	5 3	5 3	0.01032 0.01000	0.01032 0.01000	.	.
SFF	*PYRENE	Existing	4851	OILY	5	5	0.01032	0.01032	.	.
SFF	*PYRENE	New	4851	OILY	5	5	0.01032	0.01032	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
SFF	*TOLUENE	Existing	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
SFF	*TOLUENE	New	4737	GENL	5	3	0.00999	0.37945	4.78	2.19
			4851	OILY	5	0	.	0.02145	1.91	1.27
SFF	AMENABLE CYANIDE		4807	GENL	5	5	0.01999	0.01999	.	.
			4817	GENL	4	1	0.20000	0.54125	1.83	1.37
			4828	MFJ	5	0	.	0.06400	4.20	1.79
			4834	GENL	5	5	0.01999	0.01999	.	.
			4847	GENL	4	3	0.00999	0.01012	.	.
			4904	GENL	5	0	.	0.11900	2.14	1.33
			6048	GENL	5	2	0.00499	0.01619	3.70	1.76
			6186	MFJ	5	0	.	0.06179	5.12	1.99
SFF	CADMIUM	Existing	1197A	GENL	2	0	.	0.07050	.	.
			4277	GENL	5	0	.	0.17378	2.59	1.43
			4415	GENL	3	2	0.00499	0.00516	.	.
			4460	GENL	3	0	.	0.03493	.	.
			6048	GENL	5	0	.	0.89099	1.37	1.12
SFF	CADMIUM	New	4882	GENL	5	1	0.00500	0.00707	1.81	1.25
SFF	CHROMIUM	Existing	1197A	GENL	3	0	.	0.63767	.	.
			4011	GENL	3	0	.	0.87066	.	.
			4079	GENL	3	0	.	0.97033	.	.
			4310	GENL	3	0	.	2.27167	.	.
			4330	GENL	5	0	.	0.06674	2.65	1.45
			4384	GENL	5	0	.	0.58489	1.68	1.21
			4415	GENL	3	0	.	0.04880	.	.
			4417	GENL	5	0	.	0.01876	2.47	1.41
			4438	GENL	3	0	.	0.09266	.	.
			4460	GENL	3	0	.	1.17467	.	.
			4470	GENL	5	0	.	0.07731	1.73	1.22
			4811	GENL	5	3	0.00800	0.00855	1.19	1.07
			4817	GENL	5	0	.	0.09254	6.02	2.19
			4833	GENL	5	0	.	0.06793	3.37	1.61
			4847	GENL	5	0	.	0.30159	2.73	1.46
			4871	GENL	5	4	0.00999	0.01012	.	.
4904	GENL	5	0	.	0.01475	1.91	1.27			
SFF	CHROMIUM	New	4807	GENL	5	0	.	0.03580	3.95	1.74
			4854	GENL	5	0	.	0.01401	1.69	1.21
			4882	GENL	5	0	.	0.13982	8.61	2.80
SFF	COPPER	Existing	4277	GENL	5	0	.	0.55920	1.73	1.22
			4737	GENL	5	0	.	0.17525	8.73	2.82
			4806	GENL	5	0	.	0.60919	3.58	1.66
			4807	GENL	5	0	.	1.04930	2.98	1.52
			4817	GENL	5	0	.	0.23829	2.50	1.41
			4833	GENL	5	0	.	0.12827	1.63	1.19
			4834	GENL	5	0	.	0.06035	1.81	1.24
			4847	GENL	5	0	.	0.08056	3.05	1.54
			4904	GENL	5	0	.	0.04624	2.03	1.30
			SFF	COPPER	New	4807	GENL	5	0	.
4854	GENL	5				2	0.00800	0.08399	10.79	3.16
4882	GENL	5				0	.	0.02569	3.91	1.73
SFF	CYANIDE		4274	GENL	3	3	0.00999	0.00999	.	.
			4279	MFJ	5	5	0.00999	0.00999	.	.

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF			
SFF	CYANIDE		4384	GENL	5	0	.	0.77039	1.94	1.27			
			4460A	GENL	1	0	.	0.01999	.	.			
			4807	GENL	5	2	0.01999	0.02719	2.60	1.41			
			4817	GENL	5	2	0.11000	0.44300	2.18	1.60			
			4828	MFJ	5	0	.	0.09189	2.80	1.48			
			4834	GENL	5	5	0.01999	0.01999	.	.			
			4847	GENL	4	2	0.00999	0.01237	2.63	1.39			
			4891	DRYD	5	0	.	0.08829	2.92	1.51			
			4904	GENL	5	0	.	0.25709	2.74	1.47			
			6048	GENL	5	0	.	0.20700	1.66	1.20			
			6186	MFJ	5	0	.	0.19599	1.67	1.20			
			SFF	LEAD	Existing	1197A	GENL	3	1	0.20000	1.88000	.	.
						4761	GENL	3	3	0.01200	0.01200	.	.
4762	GENL	5				5	0.02480	0.02480	.	.			
4834	GENL	5				1	0.01600	0.02054	1.55	1.18			
4871	GENL	5				0	.	0.00942	1.88	1.26			
SFF	LEAD	New				4855	PWB	5	5	0.02100	0.02100	.	.
SFF	MANGANESE	Existing	4762	GENL	5	0	.	0.13878	1.64	1.20			
			4807	GENL	5	0	.	0.04963	2.08	1.31			
			4871	GENL	5	0	.	0.09170	1.35	1.11			
			4904	GENL	5	0	.	0.01327	2.22	1.35			
			SFF	MANGANESE	New	4807	GENL	5	0	.	0.12990	2.21	1.34
SFF	MOLYBDENUM	Existing	4806	GENL	5	0	.	0.72319	2.84	1.49			
			4904	GENL	5	0	.	0.03153	1.32	1.11			
SFF	MOLYBDENUM	New	4806	GENL	5	0	.	0.72319	2.84	1.49			
			4904	GENL	5	0	.	0.03153	1.32	1.11			
SFF	NICKEL	Existing	1197A	GENL	3	0	.	0.55667	.	.			
			4277	GENL	5	0	.	0.17819	1.18	1.06			
			4438	GENL	3	0	.	0.41466	.	.			
			4470	GENL	5	0	.	0.23126	1.95	1.28			
			4761	GENL	3	0	.	0.26600	.	.			
			4762	GENL	5	0	.	0.20579	2.11	1.32			
			4807	GENL	5	0	.	0.26379	2.24	1.35			
			4811	GENL	5	1	0.01799	0.04700	1.93	1.36			
			4817	GENL	5	0	.	0.03442	2.16	1.33			
			4833	GENL	5	4	0.01600	0.05120	.	.			
			4834	GENL	5	0	.	0.33040	2.26	1.35			
			4847	GENL	5	0	.	0.05452	3.16	1.56			
			4871	GENL	5	0	.	0.65159	1.41	1.13			
			4904	GENL	5	5	0.02600	0.02600	.	.			
			6048	GENL	5	0	.	0.34640	3.15	1.56			
SFF	NICKEL	New	4807	GENL	5	0	.	0.75120	2.75	1.47			
			4854	GENL	5	2	0.01600	0.03434	6.80	2.33			
SFF	OIL AND GREASE (AS HEM)	Existing	4737	GENL	5	0	.	13.60000	1.51	1.16			
			4871	GENL	5	5	6.13633	6.13633	.	.			
SFF	SILVER	Existing	1197A	GENL	3	0	.	0.33933	.	.			
			4277	GENL	5	3	0.00499	0.01035	5.89	2.13			
			4807	GENL	5	1	0.00060	0.03198	4.02	1.84			
			4817	GENL	5	0	.	0.06180	4.08	1.76			
SFF	SILVER	New	4807	GENL	5	2	0.00060	0.01558	2.94	1.79			

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
SFF	TIN	Existing	4817	GENL	5	0	.	0.05998	3.85	1.72
			4834	GENL	5	0	.	0.81520	2.14	1.32
SFF	TIN	New	4807	GENL	5	5	0.01840	0.01840	.	.
			4855	PWB	5	0	.	.	1.58	1.18
SFF	TOTAL ORGANIC CARBON (TOC	Existing	4737	GENL	5	0	.	86.50000	1.61	1.19
			4761	GENL	3	0	.	49.66667	.	.
			4762	GENL	5	0	.	170.60000	1.22	1.07
			4806	GENL	5	0	.	21.78000	3.20	1.57
			4807	GENL	5	0	.	17.29000	2.80	1.48
			4817	GENL	5	0	.	22.57000	1.82	1.24
			4833	GENL	5	3	10.00000	15.20000	5.15	1.95
			4834	GENL	5	0	.	73.06000	1.97	1.28
			4871	GENL	5	0	.	102.58000	1.37	1.12
			4904	GENL	5	5	10.00000	10.00000	.	.
SFF	TOTAL ORGANIC CARBON (TOC	New	4737	GENL	5	0	.	86.50000	1.61	1.19
			4761	GENL	3	0	.	49.66667	.	.
			4762	GENL	5	0	.	170.60000	1.22	1.07
			4806	GENL	5	0	.	21.78000	3.20	1.57
			4807	GENL	5	0	.	17.29000	2.80	1.48
			4817	GENL	5	0	.	22.57000	1.82	1.24
			4833	GENL	5	3	10.00000	15.20000	5.15	1.95
			4834	GENL	5	0	.	73.06000	1.97	1.28
			4871	GENL	5	0	.	102.58000	1.37	1.12
			4904	GENL	5	5	10.00000	10.00000	.	.
SFF	TOTAL SULFIDE	Existing	4877	OILY	5	0	.	7.10000	4.25	1.80
SFF	TOTAL SULFIDE	New	4877	OILY	5	0	.	7.10000	4.25	1.80
SFF	TOTAL SUSPENDED SOLIDS	Existing	1197A	GENL	3	0	.	26.66667	.	.
			4011	GENL	3	0	.	26.66667	.	.
			4079	GENL	3	2	5.00000	6.33333	.	.
			4277	GENL	5	0	.	14.40000	1.62	1.19
			4384	GENL	5	0	.	45.60000	2.52	1.42
			4415	GENL	3	3	1.00000	1.00000	.	.
			4417	GENL	5	1	2.00000	7.00000	3.11	1.60
			4438	GENL	3	0	.	6.66667	.	.
			4470	GENL	5	0	.	17.70000	2.87	1.50
			4737	GENL	5	0	.	24.00000	2.84	1.49
			4761	GENL	3	0	.	22.00000	.	.
			4762	GENL	5	0	.	14.40000	1.27	1.09
			4807	GENL	5	1	4.00000	8.30000	2.67	1.47
			4811	GENL	5	3	4.00000	4.00000	.	.
			4817	GENL	5	2	6.00000	11.80000	3.54	1.67
			4833	GENL	5	0	.	8.40000	2.74	1.47
4834	GENL	5	2	4.00000	14.60000	7.06	2.40			
4871	GENL	5	0	.	5.80000	2.00	1.29			
4904	GENL	5	2	4.00000	5.70000	2.33	1.37			
SFF	TOTAL SUSPENDED SOLIDS	New	4807	GENL	5	0	.	22.00000	2.10	1.31
			4882	GENL	5	4	4.00000	4.10000	.	.
SFF	ZINC	Existing	1197A	GENL	2	1	0.01999	0.03050	.	.
			4277	GENL	5	0	.	0.02764	3.30	1.59
			4415	GENL	3	0	.	0.22299	.	.
			4417	GENL	5	0	.	0.16515	2.41	1.39
			4470	GENL	5	0	.	1.38057	1.69	1.21
			4737	GENL	5	0	.	0.13753	4.45	1.84

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix C. Facility-level Long-term Averages and Variability Factors (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	EPA Sampling Episode	Episode Subcat.	Sample Size	Number of Nds	Mean Detection Limit	Long-term Average*	Daily VF	4-day VF
SFF	ZINC	Existing	4761	GENL	3	0	.	0.15916	.	.
			4762	GENL	5	0	.	0.20079	1.60	1.19
			4807	GENL	5	0	.	0.12903	3.00	1.53
			4811	GENL	5	0	.	0.05295	1.32	1.10
			4817	GENL	5	0	.	0.33290	2.02	1.29
			4871	GENL	5	0	.	0.16490	1.71	1.22
			4904	GENL	5	4	0.01499	0.01568	.	.
SFF	ZINC	New	4807	GENL	5	1	0.00020	0.04024	1.87	1.49
			4854	GENL	5	3	0.00800	0.01213	1.84	1.36
			4882	GENL	5	1	0.01100	0.03644	2.70	1.52

\* Cases where LTA is missing and VF is not indicate only VF transfer.

## Appendix D. Pollutant-level Long-term Averages, Variability Factors, and Limitations

Subcat.	Analyte	New Source or Existing Source Trt. Option	Number of Episodes (LTA)	Number of Episodes (VF)	Median LTA (mg/L)	Mean Daily VF	Mean 4-day VF	Daily Limitation (mg/L)	4-day Limitation (mg/L)
ANO	ALUMINUM	Existing	2	2	2.6	3.3	1.6	8.2	4.0
ANO	MANGANESE	Existing	4	4	0.07	1.9	1.3	0.13	0.09
ANO	NICKEL	Existing	15	10	0.24	2.2	1.4	0.50	0.31
ANO	OIL AND GREASE (AS HEM)	Existing	2	1	9.9	1.6	1.2	15	12
ANO	TOTAL SUSPENDED SOLIDS	Existing	2	2	12	4.4	1.8	52	22
ANO	ZINC	Existing	13	9	0.16	2.4	1.4	0.38	0.22
DRYD	OIL AND GREASE (AS HEM)	Existing	2	2	9.0	1.8	1.3	16	11
DRYD	TOTAL SUSPENDED SOLIDS	Existing	3	2	30	2.8	1.5	81	44
GENL	AMENABLE CYANIDE		8	5	0.04	3.4	1.7	0.14	0.07
GENL	CADMIUM	Existing New	5 1	2 1	0.08 0.01	2.0 1.8	1.3 1.3	0.14 0.02	0.09 0.01
GENL	CHROMIUM	Existing New	17 3	9 3	0.10 0.04	2.7 4.8	1.5 2.0	0.25 0.17	0.14 0.07
GENL	COPPER	Existing New	9 3	9 3	0.18 0.08	3.2 5.9	1.6 2.2	0.55 0.44	0.28 0.16
GENL	CYANIDE		13	9	0.09	2.4	1.4	0.21	0.13
GENL	LEAD	Existing New	5 1	2 .	0.02 0.03	1.8 1.6	1.3 1.2	0.04 0.04	0.03 0.03
GENL	MANGANESE	Existing New	4 1	4 1	0.07 0.13	1.9 2.3	1.3 1.4	0.13 0.29	0.09 0.18
GENL	MOLYBDENUM	Existing New	2 2	2 2	0.38 0.38	2.1 2.1	1.3 1.3	0.79 0.79	0.49 0.49
GENL	NICKEL	Existing New	15 2	10 2	0.24 0.40	2.2 4.7	1.4 1.9	0.50 1.88	0.31 0.75
GENL	OIL AND GREASE (AS HEM)	Existing New	2 2	1 1	9.9 9.9	1.6 1.6	1.2 1.2	15 15	12 12
GENL	SILVER	Existing New	4 1	3 1	0.05 0.02	4.7 3.0	2.0 1.8	0.22 0.05	0.09 0.03
GENL	TIN	Existing New	2 1	2 1	0.44 0.02	3.0 1.6	1.6 1.2	1.4 0.03	0.67 0.03
GENL	TOTAL ORGANIC CARBON (TOC)	Existing New	10 10	8 8	37 37	2.4 2.4	1.4 1.4	87 87	50 50
GENL	TOTAL ORGANICS PARAMETER	Existing New	42 42	12 12	2.3 2.3	3.9 3.9	1.8 1.8	9.0 9.0	4.3 4.3
GENL	TOTAL SULFIDE	Existing New	1 1	1 1	7.1 7.1	4.3 4.3	1.8 1.8	31 31	13 13
GENL	TOTAL SUSPENDED SOLIDS	Existing New	19 2	12 1	12 13	2.9 2.1	1.5 1.4	34 28	18 18

## Appendix D. Pollutant-level Long-term Averages, Variability Factors, and Limitations (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	Number of Episodes (LTA)	Number of Episodes (VF)	Median LTA (mg/L)	Mean Daily VF	Mean 4-day VF	Daily Limitation (mg/L)	4-day Limitation (mg/L)
GENL	ZINC	Existing	13	9	0.16	2.4	1.4	0.38	0.22
		New	3	3	0.04	2.2	1.5	0.08	0.06
MFJ	AMENABLE CYANIDE		8	5	0.04	3.4	1.7	0.14	0.07
MFJ	CADMIUM	Existing	4	2	0.05	4.5	1.9	0.21	0.09
		New	1	1	0.01	1.8	1.3	0.02	0.01
MFJ	CHROMIUM	Existing	6	3	0.31	4.3	1.8	1.3	0.55
		New	3	3	0.04	4.8	2.0	0.17	0.07
MFJ	COPPER	Existing	6	3	0.34	4.0	1.8	1.3	0.58
		New	3	3	0.08	5.9	2.2	0.44	0.16
MFJ	CYANIDE		13	9	0.09	2.4	1.4	0.21	0.13
MFJ	LEAD	Existing	3	1	0.07	1.8	1.3	0.12	0.09
		New	1	.	0.03	1.6	1.2	0.04	0.03
MFJ	MANGANESE	Existing	4	2	0.05	5.0	2.0	0.25	0.10
		New	1	1	0.13	2.3	1.4	0.29	0.18
MFJ	MOLYBDENUM	Existing	2	2	0.38	2.1	1.3	0.79	0.49
		New	2	2	0.38	2.1	1.3	0.79	0.49
MFJ	NICKEL	Existing	5	4	0.39	3.7	1.7	1.5	0.64
		New	2	2	0.40	4.7	1.9	1.88	0.75
MFJ	OIL AND GREASE (AS HEM)	New	2	1	9.9	1.6	1.2	15	12
MFJ	SILVER	Existing	3	1	0.04	4.5	1.9	0.15	0.06
		New	1	1	0.02	3.0	1.8	0.05	0.03
MFJ	TIN	Existing	1	1	1.3	1.5	1.2	1.8	1.4
		New	1	1	0.02	1.6	1.2	0.03	0.03
MFJ	TOTAL ORGANIC CARBON (TOC)	Existing	1	1	51	1.6	1.2	78	59
		New	1	1	51	1.6	1.2	78	59
MFJ	TOTAL ORGANICS PARAMETER	Existing	42	12	2.3	3.9	1.8	9.0	4.3
		New	42	12	2.3	3.9	1.8	9.0	4.3
MFJ	TOTAL SULFIDE	Existing	1	1	7.1	4.3	1.8	31	13
		New	1	1	7.1	4.3	1.8	31	13
MFJ	TOTAL SUSPENDED SOLIDS	New	2	1	13	2.1	1.4	28	18
MFJ	ZINC	Existing	8	4	0.11	3.3	1.6	0.35	0.17
		New	3	3	0.04	2.2	1.5	0.08	0.06
OILY	OIL AND GREASE (AS HEM)	Existing	2	2	17	1.6	1.2	27	20
OILY	TOTAL ORGANIC CARBON (TOC)	Existing	4	3	282	2.3	1.4	633	378
OILY	TOTAL ORGANICS PARAMETER	Existing	42	12	2.3	3.9	1.8	9.0	4.3
OILY	TOTAL SULFIDE	Existing	1	1	7.1	4.3	1.8	31	13
OILY	TOTAL SUSPENDED SOLIDS	Existing	5	4	20	3.3	1.6	63	31
PWB	AMENABLE CYANIDE		8	5	0.04	3.4	1.7	0.14	0.07

## Appendix D. Pollutant-level Long-term Averages, Variability Factors, and Limitations (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	Number of Episodes (LTA)	Number of Episodes (VF)	Median LTA (mg/L)	Mean Daily VF	Mean 4-day VF	Daily Limitation (mg/L)	4-day Limitation (mg/L)
PWB	CHROMIUM	Existing	17	9	0.10	2.7	1.5	0.25	0.14
		New	3	3	0.04	4.8	2.0	0.17	0.07
PWB	COPPER	Existing	9	9	0.18	3.2	1.6	0.55	0.28
		New	1	.	0.01	1.6	1.2	0.01	0.01
PWB	CYANIDE		13	9	0.09	2.4	1.4	0.21	0.13
PWB	LEAD	Existing	5	2	0.02	1.8	1.3	0.04	0.03
		New	1	.	0.03	1.6	1.2	0.04	0.03
PWB	MANGANESE	Existing	1	1	0.41	3.1	1.6	1.3	0.64
		New	1	1	0.13	2.3	1.4	0.29	0.18
PWB	NICKEL	Existing	2	2	0.08	3.7	1.7	0.30	0.14
		New	2	2	0.40	4.7	1.9	1.88	0.75
PWB	OIL AND GREASE (AS HEM)	New	2	1	9.9	1.6	1.2	15	12
PWB	TIN	Existing	2	2	0.08	4.0	1.8	0.31	0.14
		New	1	1	0.06	1.6	1.2	0.09	0.07
PWB	TOTAL ORGANIC CARBON (TOC)	Existing	2	2	53	2.0	1.3	101	67
		New	2	2	53	2.0	1.3	101	67
PWB	TOTAL ORGANICS PARAMETER	Existing	42	12	2.3	3.9	1.8	9.0	4.3
		New	42	12	2.3	3.9	1.8	9.0	4.3
PWB	TOTAL SULFIDE	Existing	1	1	7.1	4.3	1.8	31	13
		New	1	1	7.1	4.3	1.8	31	13
PWB	TOTAL SUSPENDED SOLIDS	New	2	1	13	2.1	1.4	28	18
PWB	ZINC	Existing	13	9	0.16	2.4	1.4	0.38	0.22
		New	3	3	0.04	2.2	1.5	0.08	0.06
RRL	BOD 5-DAY (CARBONACEOUS)	Existing	1	2	5.2	6.5	2.3	34	12
RRL	OIL AND GREASE (AS HEM)	Existing	1	2	6.3	1.8	1.3	11	7.6
RRL	TOTAL SUSPENDED SOLIDS	Existing	1	2	11	2.8	1.5	30	16
SFF	AMENABLE CYANIDE		8	5	0.04	3.4	1.7	0.14	0.07
SFF	CADMIUM	Existing	5	2	0.08	2.0	1.3	0.14	0.09
		New	1	1	0.01	1.8	1.3	0.02	0.01
SFF	CHROMIUM	Existing	17	9	0.10	2.7	1.5	0.25	0.14
		New	3	3	0.04	4.8	2.0	0.17	0.07
SFF	COPPER	Existing	9	9	0.18	3.2	1.6	0.55	0.28
		New	3	3	0.08	5.9	2.2	0.44	0.16
SFF	CYANIDE		13	9	0.09	2.4	1.4	0.21	0.13
SFF	LEAD	Existing	5	2	0.02	1.8	1.3	0.04	0.03
		New	1	.	0.03	1.6	1.2	0.04	0.03
SFF	MANGANESE	Existing	4	4	0.07	1.9	1.3	0.13	0.09
		New	1	1	0.13	2.3	1.4	0.29	0.18



## Appendix D. Pollutant-level Long-term Averages, Variability Factors, and Limitations (continued)

Subcat.	Analyte	New Source or Existing Source Trt. Option	Number of Episodes (LTA)	Number of Episodes (VF)	Median LTA (mg/L)	Mean Daily VF	Mean 4-day VF	Daily Limitation (mg/L)	4-day Limitation (mg/L)
SFF	MOLYBDENUM	Existing	2	2	0.38	2.1	1.3	0.79	0.49
		New	2	2	0.38	2.1	1.3	0.79	0.49
SFF	NICKEL	Existing	15	10	0.24	2.2	1.4	0.50	0.31
		New	2	2	0.40	4.7	1.9	1.88	0.75
SFF	OIL AND GREASE (AS HEM)	Existing	2	1	9.9	1.6	1.2	15	12
		New	2	1	9.9	1.6	1.2	15	12
SFF	SILVER	Existing	4	3	0.05	4.7	2.0	0.22	0.09
		New	1	1	0.02	3.0	1.8	0.05	0.03
SFF	TIN	Existing	2	2	0.44	3.0	1.6	1.4	0.67
		New	1	1	0.02	1.6	1.2	0.03	0.03
SFF	TOTAL ORGANIC CARBON (TOC)	Existing	10	8	37	2.4	1.4	87	50
		New	10	8	37	2.4	1.4	87	50
SFF	TOTAL ORGANICS PARAMETER	Existing	42	12	2.3	3.9	1.8	9.0	4.3
		New	42	12	2.3	3.9	1.8	9.0	4.3
SFF	TOTAL SULFIDE	Existing	1	1	7.1	4.3	1.8	31	13
		New	1	1	7.1	4.3	1.8	31	13
SFF	TOTAL SUSPENDED SOLIDS	Existing	19	12	12	2.9	1.5	34	18
		New	2	1	13	2.1	1.4	28	18
SFF	ZINC	Existing	13	9	0.16	2.4	1.4	0.38	0.22
		New	3	3	0.04	2.2	1.5	0.08	0.06

## Appendix E1. Effluent Limitations (mg/L) for Existing Source Treatment Options

Analyte	GENL Daily	GENL Monthly	MFJ Daily	MFJ Monthly	PWB Daily	PWB Monthly	ANO Daily	ANO Monthly	DRYD Daily	DRYD Monthly	OILY Daily	OILY Monthly	RRL Daily	RRL Monthly	SFF Daily	SFF Monthly
ALUMINUM	--	--	--	--	--	--	8.2	4.0	--	--	--	--	--	--	--	--
AMENABLE CYANIDE	0.14	0.07	0.14	0.07	0.14	0.07	--	--	--	--	--	--	--	--	0.14	0.07
BOD 5-DAY	--	--	--	--	--	--	--	--	--	--	--	--	34	12	--	--
CADMIUM	0.14	0.09	0.21	0.09	--	--	--	--	--	--	--	--	--	--	0.14	0.09
CHROMIUM	0.25	0.14	1.3	0.55	0.25	0.14	--	--	--	--	--	--	--	--	0.25	0.14
COPPER	0.55	0.28	1.3	0.58	0.55	0.28	--	--	--	--	--	--	--	--	0.55	0.28
CYANIDE	0.21	0.13	0.21	0.13	0.21	0.13	--	--	--	--	--	--	--	--	0.21	0.13
LEAD	0.04	0.03	0.12	0.09	0.04	0.03	--	--	--	--	--	--	--	--	0.04	0.03
MANGANESE	0.13	0.09	0.25	0.10	1.3	0.64	0.13	0.09	--	--	--	--	--	--	0.13	0.09
MOLYBDENUM	0.79	0.49	0.79	0.49	--	--	--	--	--	--	--	--	--	--	0.79	0.49
NICKEL	0.50	0.31	1.5	0.64	0.30	0.14	0.50	0.31	--	--	--	--	--	--	0.50	0.31
OIL AND GREASE (AS	15	12	52	26	52	26	52	26	16	11	27	20	11	7.6	15	12
SILVER	0.22	0.09	0.15	0.06	--	--	--	--	--	--	--	--	--	--	0.22	0.09
TIN	1.4	0.67	1.8	1.4	0.31	0.14	--	--	--	--	--	--	--	--	1.4	0.67
TOTAL ORGANIC CARBON	87	50	78	59	101	67	--	--	--	--	633	378	--	--	87	50
TOTAL ORGANICS	9.0	4.3	9.0	4.3	9.0	4.3	--	--	--	--	9.0	4.3	--	--	9.0	4.3
TOTAL SULFIDE	31	13	31	13	31	13	--	--	--	--	31	13	--	--	31	13
TOTAL SUSPENDED SOLIDS	34	18	60	31	60	31	60	31	81	44	63	31	30	16	34	18
ZINC	0.38	0.22	0.35	0.17	0.38	0.22	0.38	0.22	--	--	--	--	--	--	0.38	0.22

## Appendix E2. Effluent Limitations (mg/L) for New Source Treatment Options

Analyte	GENL Daily	GENL Monthly	MFJ Daily	MFJ Monthly	PWB Daily	PWB Monthly	ANO Daily	ANO Monthly	DRYD Daily	DRYD Monthly	OILY Daily	OILY Monthly	RRL Daily	RRL Monthly	SFF Daily	SFF Monthly
ALUMINUM	--	--	--	--	--	--	8.2	4.0	--	--	--	--	--	--	--	--
AMENABLE CYANIDE	0.14	0.07	0.14	0.07	0.14	0.07	--	--	--	--	--	--	--	--	0.14	0.07
BOD 5-DAY	--	--	--	--	--	--	--	--	--	--	--	--	34	12	--	--
CADMIUM	0.02	0.01	0.02	0.01	--	--	--	--	--	--	--	--	--	--	0.02	0.01
CHROMIUM	0.17	0.07	0.17	0.07	0.17	0.07	--	--	--	--	--	--	--	--	0.17	0.07
COPPER	0.44	0.16	0.44	0.16	0.01	0.01	--	--	--	--	--	--	--	--	0.44	0.16
CYANIDE	0.21	0.13	0.21	0.13	0.21	0.13	--	--	--	--	--	--	--	--	0.21	0.13
LEAD	0.04	0.03	0.04	0.03	0.04	0.03	--	--	--	--	--	--	--	--	0.04	0.03
MANGANESE	0.29	0.18	0.29	0.18	0.29	0.18	0.13	0.09	--	--	--	--	--	--	0.29	0.18
MOLYBDENUM	0.79	0.49	0.79	0.49	--	--	--	--	--	--	--	--	--	--	0.79	0.49
NICKEL									--	--	--	--	--	--		
OIL AND GREASE (AS	15	12	15	12	15	12	15	12	16	11	27	20	11	7.6	15	12
SILVER	0.05	0.03	0.05	0.03	--	--	--	--	--	--	--	--	--	--	0.05	0.03
TIN	0.03	0.03	0.03	0.03	0.09	0.07	--	--	--	--	--	--	--	--	0.03	0.03
TOTAL ORGANIC CARBON	87	50	78	59	101	67	--	--	--	--	633	378	--	--	87	50
TOTAL ORGANICS	9.0	4.3	9.0	4.3	9.0	4.3	--	--	--	--	9.0	4.3	--	--	9.0	4.3
TOTAL SULFIDE	31	13	31	13	31	13	--	--	--	--	31	13	--	--	31	13
TOTAL SUSPENDED SOLIDS	28	18	28	18	28	18	52	22	81	44	63	31	30	16	28	18
ZINC	0.08	0.06	0.08	0.06	0.08	0.06	0.38	0.22	--	--	--	--	--	--	0.08	0.06

## Appendix F1. Production-based Limits for the Steel Forming and Finishing Subcategory

Existing Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
TOTAL SUSPENDED SOLIDS	Acid Pickling	0.0708732	0.0368153
	Alkaline Cleaning	0.0708732	0.0368153
	Continuous Annealing	0.0035437	0.0018408
	Hot Dip Coating	0.0205532	0.0106764
	Pressure Deformation	0.0035437	0.0018408
	Lubrication	0.0017010	0.0008836
	Mechanical Descaling	0.0002835	0.0001473
	Painting	0.0092135	0.0047860
	Electroplating	0.1417465	0.0736305
	OIL AND GREASE (AS HEM)	Acid Pickling	0.0311348
Alkaline Cleaning		0.0311348	0.0238847
Continuous Annealing		0.0015567	0.0011942
Hot Dip Coating		0.0090291	0.0069266
Pressure Deformation		0.0015567	0.0011942
Lubrication		0.0007472	0.0005732
Mechanical Descaling		0.0001245	0.0000955
Painting		0.0040475	0.0031050
Electroplating		0.0622695	0.0477695
TOTAL ORGANIC CARBON (TOC)		Acid Pickling	0.1801976
	Alkaline Cleaning	0.1801976	0.1026555
	Continuous Annealing	0.0090099	0.0051328
	Hot Dip Coating	0.0522573	0.0297701
	Pressure Deformation	0.0090099	0.0051328
	Lubrication	0.0043247	0.0024637
	Mechanical Descaling	0.0007208	0.0004106
	Painting	0.0234257	0.0133452
	Electroplating	0.3603951	0.2053111
	TOTAL ORGANICS PARAMETER	Acid Pickling	0.0187268
Alkaline Cleaning		0.0187268	0.0089570
Continuous Annealing		0.0009363	0.0004478
Hot Dip Coating		0.0054308	0.0025975
Pressure Deformation		0.0009363	0.0004478
Lubrication		0.0004494	0.0002150
Mechanical Descaling		0.0000749	0.0000358
Painting		0.0024345	0.0011644
Electroplating		0.0374536	0.0179139
CADMIUM		Acid Pickling	0.0002912
	Alkaline Cleaning	0.0002912	0.0001876
	Continuous Annealing	0.0000146	0.0000094
	Hot Dip Coating	0.0000844	0.0000544
	Pressure Deformation	0.0000146	0.0000094
	Lubrication	0.0000070	0.0000045
	Mechanical Descaling	0.0000012	0.0000008
	Painting	0.0000379	0.0000244
	Electroplating	0.0005824	0.0003752

**Appendix F1. Production-based Limits for the Steel Forming and Finishing Subcategory  
(continued)**

Existing Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
CHROMIUM	Acid Pickling	0.0005090	0.0002761
	Alkaline Cleaning	0.0005090	0.0002761
	Continuous Annealing	0.0000255	0.0000138
	Hot Dip Coating	0.0001476	0.0000801
	Pressure Deformation	0.0000255	0.0000138
	Lubrication	0.0000122	0.0000066
	Mechanical Descaling	0.0000020	0.0000011
	Painting	0.0000662	0.0000359
	Electroplating	0.0010180	0.0005522
COPPER	Acid Pickling	0.0011386	0.0005645
	Alkaline Cleaning	0.0011386	0.0005645
	Continuous Annealing	0.0000569	0.0000282
	Hot Dip Coating	0.0003302	0.0001637
	Pressure Deformation	0.0000569	0.0000282
	Lubrication	0.0000273	0.0000135
	Mechanical Descaling	0.0000046	0.0000023
	Painting	0.0001480	0.0000734
	Electroplating	0.0022772	0.0011290
CYANIDE	Electroplating	0.0008649	0.0005131
AMENABLE CYANIDE	Electroplating	0.0005798	0.0002812
LEAD	Acid Pickling	0.0000736	0.0000522
Alkaline Cleaning	0.0000736	0.0000522	
Continuous Annealing	0.0000037	0.0000026	
Hot Dip Coating	0.0000213	0.0000151	
Pressure Deformation	0.0000037	0.0000026	
Lubrication	0.0000018	0.0000013	
Mechanical Descaling	0.0000003	0.0000002	
Painting	0.0000096	0.0000068	
Electroplating	0.0001472	0.0001043	
MANGANESE	Acid Pickling	0.0002685	0.0001829
	Alkaline Cleaning	0.0002685	0.0001829
	Continuous Annealing	0.0000134	0.0000091
	Hot Dip Coating	0.0000779	0.0000530
	Pressure Deformation	0.0000134	0.0000091
	Lubrication	0.0000064	0.0000044
	Mechanical Descaling	0.0000011	0.0000007
	Painting	0.0000349	0.0000238
	Electroplating	0.0005370	0.0003657
MOLYBDENUM	Acid Pickling	0.0016397	0.0010215
	Alkaline Cleaning	0.0016397	0.0010215
	Continuous Annealing	0.0000820	0.0000511

**Appendix F1. Production-based Limits for the Steel Forming and Finishing Subcategory  
(continued)**

Existing Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
MOLYBDENUM	Hot Dip Coating	0.0004755	0.0002962
	Pressure Deformation	0.0000820	0.0000511
	Lubrication	0.0000394	0.0000245
	Mechanical Descaling	0.0000066	0.0000041
	Painting	0.0002132	0.0001328
	Electroplating	0.0032795	0.0020431
NICKEL	Acid Pickling	0.0010387	0.0006413
	Alkaline Cleaning	0.0010387	0.0006413
	Continuous Annealing	0.0000519	0.0000321
	Hot Dip Coating	0.0003012	0.0001860
	Pressure Deformation	0.0000519	0.0000321
	Lubrication	0.0000249	0.0000154
	Mechanical Descaling	0.0000042	0.0000026
	Painting	0.0001350	0.0000834
	Electroplating	0.0020775	0.0012826
	SILVER	Acid Pickling	0.0004559
Alkaline Cleaning		0.0004559	0.0001869
Continuous Annealing		0.0000228	0.0000093
Hot Dip Coating		0.0001322	0.0000542
Pressure Deformation		0.0000228	0.0000093
Lubrication		0.0000109	0.0000045
Mechanical Descaling		0.0000018	0.0000007
Painting		0.0000593	0.0000243
Electroplating		0.0009118	0.0003737
TOTAL SULFIDE		Acid Pickling	0.0629111
	Alkaline Cleaning	0.0629111	0.0266763
	Continuous Annealing	0.0031456	0.0013338
	Hot Dip Coating	0.0182442	0.0077361
	Pressure Deformation	0.0031456	0.0013338
	Lubrication	0.0015099	0.0006402
	Mechanical Descaling	0.0002516	0.0001067
	Painting	0.0081784	0.0034679
	Electroplating	0.1258221	0.0533527
	TIN	Acid Pickling	0.0027319
Alkaline Cleaning		0.0027319	0.0013866
Continuous Annealing		0.0001366	0.0000693
Hot Dip Coating		0.0007922	0.0004021
Pressure Deformation		0.0001366	0.0000693
Lubrication		0.0000656	0.0000333
Mechanical Descaling		0.0000109	0.0000055
Painting		0.0003551	0.0001803
Electroplating		0.0054637	0.0027731
ZINC		Acid Pickling	0.0007922
	Alkaline Cleaning	0.0007922	0.0004558
	Continuous Annealing	0.0000396	0.0000228
	Hot Dip Coating	0.0002297	0.0001322
	Pressure Deformation	0.0000396	0.0000228
	Lubrication	0.0000190	0.0000109
	Mechanical Descaling	0.0000032	0.0000018
	Painting	0.0001030	0.0000593
	Electroplating	0.0015844	0.0009117

## Appendix F2. Production-based Limits for the Steel Forming and Finishing Subcategory

New Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
TOTAL SUSPENDED SOLIDS	Acid Pickling	0.0570887	0.0357776
	Alkaline Cleaning	0.0570887	0.0357776
	Continuous Annealing	0.0028544	0.0017889
	Hot Dip Coating	0.0165557	0.0103755
	Pressure Deformation	0.0028544	0.0017889
	Lubrication	0.0013701	0.0008587
	Mechanical Descaling	0.0002284	0.0001431
	Painting	0.0074215	0.0046511
	Electroplating	0.1141775	0.0715552
OIL AND GREASE (AS HEM)	Acid Pickling	0.0311348	0.0238847
	Alkaline Cleaning	0.0311348	0.0238847
	Continuous Annealing	0.0015567	0.0011942
	Hot Dip Coating	0.0090291	0.0069266
	Pressure Deformation	0.0015567	0.0011942
	Lubrication	0.0007472	0.0005732
	Mechanical Descaling	0.0001245	0.0000955
	Painting	0.0040475	0.0031050
	Electroplating	0.0622695	0.0477695
TOTAL ORGANIC CARBON (TOC)	Acid Pickling	0.1801976	0.1026555
	Alkaline Cleaning	0.1801976	0.1026555
	Continuous Annealing	0.0090099	0.0051328
	Hot Dip Coating	0.0522573	0.0297701
	Pressure Deformation	0.0090099	0.0051328
	Lubrication	0.0043247	0.0024637
	Mechanical Descaling	0.0007208	0.0004106
	Painting	0.0234257	0.0133452
	Electroplating	0.3603951	0.2053111
TOTAL ORGANICS PARAMETER	Acid Pickling	0.0187268	0.0089570
	Alkaline Cleaning	0.0187268	0.0089570
	Continuous Annealing	0.0009363	0.0004478
	Hot Dip Coating	0.0054308	0.0025975
	Pressure Deformation	0.0009363	0.0004478
	Lubrication	0.0004494	0.0002150
	Mechanical Descaling	0.0000749	0.0000358
	Painting	0.0024345	0.0011644
	Electroplating	0.0374536	0.0179139
CADMIUM	Acid Pickling	0.0000267	0.0000184
	Alkaline Cleaning	0.0000267	0.0000184
	Continuous Annealing	0.0000013	0.0000009
	Hot Dip Coating	0.0000077	0.0000053
	Pressure Deformation	0.0000013	0.0000009
	Lubrication	0.0000006	0.0000004
	Mechanical Descaling	0.0000001	0.0000001
	Painting	0.0000035	0.0000024
	Electroplating	0.0000533	0.0000368

**Appendix F2. Production-based Limits for the Steel Forming and Finishing Subcategory  
(continued)**

New Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
CHROMIUM	Acid Pickling	0.0003546	0.0001428
	Alkaline Cleaning	0.0003546	0.0001428
	Continuous Annealing	0.0000177	0.0000071
	Hot Dip Coating	0.0001028	0.0000414
	Pressure Deformation	0.0000177	0.0000071
	Lubrication	0.0000085	0.0000034
	Mechanical Descaling	0.0000014	0.0000006
	Painting	0.0000461	0.0000186
	Electroplating	0.0007092	0.0002857
COPPER	Acid Pickling	0.0008979	0.0003269
	Alkaline Cleaning	0.0008979	0.0003269
	Continuous Annealing	0.0000449	0.0000163
	Hot Dip Coating	0.0002604	0.0000948
	Pressure Deformation	0.0000449	0.0000163
	Lubrication	0.0000215	0.0000078
	Mechanical Descaling	0.0000036	0.0000013
	Painting	0.0001167	0.0000425
	Electroplating	0.0017957	0.0006539
CYANIDE	Electroplating	0.0008649	0.0005131
AMENABLE CYANIDE	Electroplating	0.0005798	0.0002812
LEAD	Acid Pickling	0.0000692	0.0000516
Alkaline Cleaning	0.0000692	0.0000516	
Continuous Annealing	0.0000035	0.0000026	
Hot Dip Coating	0.0000201	0.0000150	
Pressure Deformation	0.0000035	0.0000026	
Lubrication	0.0000017	0.0000012	
Mechanical Descaling	0.0000003	0.0000002	
Painting	0.0000090	0.0000067	
Electroplating	0.0001383	0.0001033	
MANGANESE	Acid Pickling	0.0005998	0.0003639
	Alkaline Cleaning	0.0005998	0.0003639
	Continuous Annealing	0.0000300	0.0000182
	Hot Dip Coating	0.0001739	0.0001055
	Pressure Deformation	0.0000300	0.0000182
	Lubrication	0.0000144	0.0000087
	Mechanical Descaling	0.0000024	0.0000015
	Painting	0.0000780	0.0000473
	Electroplating	0.0011996	0.0007278
MOLYBDENUM	Acid Pickling	0.0016397	0.0010215
	Alkaline Cleaning	0.0016397	0.0010215
	Continuous Annealing	0.0000820	0.0000511



**Appendix F2. Production-based Limits for the Steel Forming and Finishing Subcategory  
(continued)**

New Source Limits	Manufacturing Operation	Maximum Daily (lbs/1000 lbs of product)	Maximum Monthly avg. (lbs/1000 lbs of product)
MOLYBDENUM	Hot Dip Coating	0.0004755	0.0002962
	Pressure Deformation	0.0000820	0.0000511
	Lubrication	0.0000394	0.0000245
	Mechanical Descaling	0.0000066	0.0000041
	Painting	0.0002132	0.0001328
	Electroplating	0.0032795	0.0020431
NICKEL	Acid Pickling	0.0039098	0.0015569
	Alkaline Cleaning	0.0039098	0.0015569
	Continuous Annealing	0.0001955	0.0000778
	Hot Dip Coating	0.0011338	0.0004515
	Pressure Deformation	0.0001955	0.0000778
	Lubrication	0.0000938	0.0000374
	Mechanical Descaling	0.0000156	0.0000062
	Painting	0.0005083	0.0002024
	Electroplating	0.0078195	0.0031138
	SILVER	Acid Pickling	0.0000954
Alkaline Cleaning		0.0000954	0.0000582
Continuous Annealing		0.0000048	0.0000029
Hot Dip Coating		0.0000277	0.0000169
Pressure Deformation		0.0000048	0.0000029
Lubrication		0.0000023	0.0000014
Mechanical Descaling		0.0000004	0.0000002
Painting		0.0000124	0.0000076
Electroplating		0.0001909	0.0001164
TOTAL SULFIDE		Acid Pickling	0.0629111
	Alkaline Cleaning	0.0629111	0.0266763
	Continuous Annealing	0.0031456	0.0013338
	Hot Dip Coating	0.0182442	0.0077361
	Pressure Deformation	0.0031456	0.0013338
	Lubrication	0.0015099	0.0006402
	Mechanical Descaling	0.0002516	0.0001067
	Painting	0.0081784	0.0034679
	Electroplating	0.1258221	0.0533527
	TIN	Acid Pickling	0.0000606
Alkaline Cleaning		0.0000606	0.0000452
Continuous Annealing		0.0000030	0.0000023
Hot Dip Coating		0.0000176	0.0000131
Pressure Deformation		0.0000030	0.0000023
Lubrication		0.0000015	0.0000011
Mechanical Descaling		0.0000002	0.0000002
Painting		0.0000079	0.0000059
Electroplating		0.0001212	0.0000905
ZINC		Acid Pickling	0.0001622
	Alkaline Cleaning	0.0001622	0.0001106
	Continuous Annealing	0.0000081	0.0000055
	Hot Dip Coating	0.0000470	0.0000321
	Pressure Deformation	0.0000081	0.0000055
	Lubrication	0.0000039	0.0000027
	Mechanical Descaling	0.0000006	0.0000004
	Painting	0.0000211	0.0000144
	Electroplating	0.0003244	0.0002212